Mushrooms, Fungi, and Climate Change

"The Ozark-St. Francis National Forest (OSFNF) is rich with fungus, mushrooms, and mycelial growth throughout the watersheds of our National Wild and Scenic Rivers.

Fungal colonies composed of mycelium are found in and on soil and many other substrates. **Mycelium** extends the area in which a fungi can find nutrients. Fungi are stationary organisms; however, mycelium grow outwards to look for water and nutrients such as nitrogen, carbon, potassium and phosphorus, which the mycelium transports to the fruiting body so it can continue to produce biomass and grow.

Mushrooms grow from spores (not seeds) that are so tiny you can't see individual spores with the naked eye. Rather than soil, these spores rely on substances like sawdust, grain, straw, or wood chips for nourishment. ... The mycelium grows first, before anything that resembles a mushroom pushes through the soil.

How can mushrooms and mycelial growth be our biggest ally for helping the environment and Climate Change?

ONLINE RESOURCES

*1 https://www.nbcnews.com/news/us-news/fungus-answer-climate-change-student-who-grew-mushroom-canoe-says-n1185401

*2 https://www.ecowatch.com/mushrooms-climate-crisis-2645762381.html?rebelltitem=6#rebelltitem6

*3 https://fungi.com/pages/bees

*4 https://phys.org/news/2013-03-fungi-responsible-carbon-sequestration-northern.html

*5 https://www.fastcompany.com/90459486/climate-change-is-the-greatest-design-problem-of-our-time-mushrooms-to-the-rescue

1. **How are mushrooms used in medicine? *2**
2. **How is fungus used to benefit bees and ? *3**
3. **What industrial materials can be made from mycelium to replace other more harmful materials that are hard to recycle and harmful to the environment. *1**
4. **How can fungus spores be used to clean up pollution? *2**
5. **How do fungal bodies sequester carbon from the atmosphere? *4**
6. **How can mushrooms benefit design problems related to Climate Change? *5**