

Mycelium is the root structure of mushrooms grown through fermentation. The robust fungal fibers act as a natural glue to bind the substrate particles.

Benefits:

- Sustainable alternative to plastics
- Biodegradable and compostable
- Cultivable with agricultural residues
- Carbon footprint 10X lower than plastic
- Versatile - can create packaging, fashion, construction materials

By learning to work with mycelium, students gain appreciation for sustainability and circular systems while honing their innovation skills. The goal is to inspire youth to create eco-conscious solutions using locally available biomaterials.

Students at Mission Deep Educational Trust and I first sourced mycelium from Nuvedo to create sustainable plant pots. For every 5kg of mycelium, the school could raise approximately Rs. 2000 in funds through sale of the pots.

To make the initiative self-sustaining, I taught students how to culture mycelium starting from spores. We are now growing our own mycelium supply so students can produce pots with zero procurement costs.

This enables a circular economy:

- Agricultural waste like straw and husk is upcycled as substrate to grow mycelium
- Students produce mycelium materials and pots, gaining skills
- The pots are sold to raise funds for the school and community
- After use, the mycelium pots decompose back into the soil

[Add images of students working with mycelium and the final products]