



Fighting hunger & waste with Fungi

Oyster Mushroom cultivation started in Germany during WWI as a subsistence measure due to their ease to grow and the many nutrients that a human body needs to function. Since

Many studies have been conducted on Oyster Mushrooms ability to grow on almost anything.

Oyster Mushrooms can feed on any lignocellulosic material as well as plastic in some cases

In agricultural production there are a multitude of Agricultural wastes products created most of which could be used to grow the Oyster Mushroom

Waste that could be used as oyster

Substrates:

- Corn stalks
- Soybean Hulls
- Cotton seed hulls
- Coconut husk
- Cardboard
- Paper products
- Ect.

With the proper resources these waste products could be used to created food in while at the same time creating bioavailable compost for plants (with spent substrate blocks) and decreasing the amount of waste inside of landfills, causing high levels of carbon emission.

Oyster Mushrooms are packed with nutrients needed by our bodies, can grow on almost anything and could be the futures answer for not only decomposition of waste materials but a method of feeding millions of families world wide.

Fighting waste and hunger with Fungi Food insecurity is a problem that has plagued Greensboro NC for years now and plagues many different cities and even countries worldwide. To combat this I suggest a program in food insecure areas funded by local and state governments that reduce agricultural waste and increase healthy and nutritious food availability. Oyster mushrooms were cultivated by Germany after World War II to combat food shortages and starvation after large sanctions were placed on the country and people struggled to afford food. Mushrooms have a plethora of health benefits and provide many of the nutrients and vitamins that the body needs to function. Many studies have been done on the biological efficiency of growing mushrooms on agricultural waste such as banana leaves, cotton seed hulls, corn husks, tea leaves and spent coffee grounds and many other waste products have yet to be tested. The *Pleurotus ostreatus* aka the Oyster Mushroom has even been documented to grow on plastic infused substrates. Mushrooms are low cost, fast growing, nutritious produce that can grow on the waste produced by many agricultural processes. Mushrooms can be grown with very low tech methods, do not use lots of water or energy to produce and can virtually be grown in any climate making them a perfect food source to combat food insecurity as well as food waste. – E. Stephen Whitehead