CSIR-TECHNOLOGY BRIEFS

MUSHROOM TECHNOLOGY

Mushroom technology involves culturing of different strains of mushrooms (production of mushroom spawns) in a mushroom laboratory and cultivating mushrooms using various agricultural wastes such as rice straw, sawdust, plantain/banana leaves, cassava peels, yam peels, cocoa husks etc. Both edible and medicinal mushrooms are produced. Compared to other crops, mushroom cultivation has a shorter cycle of 3-4 months from composting to harvesting. Mushroom cultivation does not require large acres of land and huge irrigation dams. Our society has evolved into a health conscious one and this has resulted in an exponential increase in mushroom consumption. Therefore, mushroom cultivation has become a very lucrative business with high profit margins.

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THE CHALLENGE
Why 'Mushroom technology'?

The increase in mushroom consumption has led to a high market demand. The demand has spanned out of the confines of the country and is currently highly sort after in neighboring West African countries. This has brought to light the challenges of housing and equipment availability. Though CSIR-FRI is the leading supplier of mushroom spawns in the country, these challenges are restricting supply, locally and internationally. Mushrooms are highly perishable and this creates a niche for added value mushroom products and technologies to increase its shelf life and make it readily available in all seasons.

THE TECHNOLOGICAL SOLUTION

Various research works have been carried out in mushroom technology over the years. These have resulted in CSIR-FRI expanding its production of mushroom spawns of different varieties for both edible and medicinal mushrooms. It has mastered technologies in spawn multiplication production (eg. Oyster spawns, Oil palm spawns and Monkey seat/*Ganoderma* spawns), compost bags and fresh mushroom production

Many value added products have been developed. These include variety of mushroom sauces, mushroom khebabs (tastes very similar to meat khebabs), mushroom soups and mushroom cereal mix among others.

BENEFITS – TECHNICAL, SOCIAL & ECONOMIC

- Shorter cultivation period compared to other crops.
- High market demand.
- High demand of spawns and compost bags in neighboring countries.
- Vast array of value added products with potential high returns.
- Mushroom business has the potential to generate over 1 million Ghana cedis a year.
- A good business option for young entrepreneurs.

POTENTIAL UPTAKE PATHWAY

- Small, Medium to Large Scale mushroom farmers
- Entrepreneurs
- Local community groups

CONTACT DETAILS:
Name: The Director
Institute: CSIR-Food Research Instiute, Accra, Ghana
Tel: +233(0)302 519 091-5
E-mail: info@foodresearchgh.org
Web: https://www.foodresearchgh.org