

# Sharing local experience on mushroom production by using traditional methods

By

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# Introduction

- Uyogaplus(meaning mushroomplus), is a cooperative enterprise of mushroom growers in Dar es salaam, Tanzania.
- Uyogaplus was founded in 2021 by five graduates (**put their photos**)
- Currently the cooperative has already trained more than one hundred trainees and 35 of them are now growing mushroom under the uyogaplus cooperative.

**(If you have photo on those producing mushrooms put them here)**

- Please try to answer the following questions
- How did you start? Show the evolution from poor working structures to those you have today
- Tell us about the market potential (where do you sell the products)
- Where do you buy or get the substrates (are they obtained for free or on sell?)
- How the society perceive mushroom production? Positive or negative
- How do you recommend youth and women on mushroom industry?

# Uyogaplus Mushroom Houses.





# Our Key Activity



- To give training on mushroom production.
- Production of both edible and medicinal mushroom.
- Mushroom processing.
- Mushroom marketing, and branding.
- Mushroom spawns production.
- Research and Development on domestication of wild mushroom varieties.

# Our Targets.

- To produce one ton of fresh oyster mushroom per day and one ton of medicinal mushroom (*Ganoderma lucidum*) per month.
- To train 100 trainees per month.
- To lower mushroom price from Tsh10,000 per kg to Tsh6000 per kg below the price of red meat, so that it can be affordable to many Tanzanians this is to be done by adopting to new and cheaper methods of cultivating mushroom may be using the junciao technology (Is this price higher compare to other producers?)
- To establish uyogaplus laboratory for mushroom spawns production.
- To establish a so called Uyogaplus collection center of mushrooms from different mushroom growers.
- To establish uyogaplus restaurants with mushroom meals, this is to emphasize more on the use of mushroom as food.
- Processing mushrooms to add value and storability

# The production cycle batch one.

- Substarates used
- Sawdust 70%
- Banana leaves 26%
- Sugar 1%
- Maize bran 1%
- Gypsum 1%
- Chicken manure 1%

Date of inoculation	No. Mushroom bags	Contaminate d bags	Date of first harvest	Amount produced	Biological yield
01.10.2021	2000	200	05.11.2021	450kg	45%

# Constraints and solution.

## **constraints**

- Low yield
- Contamination
- Substrates

## **solution**

- Uyogaplus is adopting to simple homemade humidifier technology, to enhance humid condition in mushroom houses especially during the summer season, which is hot in Dar es salaam.
- Increasing the time for pasteurization from six hours to eight
- On regard to substrates used, uyogaplus is adopting to a new technology of using elephant grasses to grow mushroom, this seems to be cheaper as less supplementation is required when using grasses than using sawdust, thus less susceptible to contaminants.



# GENERAL SOLUTIONS AND REQUIREMENTS

# Juncao Technology

Benefits of using grasses in mushroom production

- Few hours of pasteurization hence less expensive
- Less supplementation less susceptibility to contaminations
- Ease substrates preparation process as it does not require composting.
- Raw materials in bio gas production.

**Fig 1. Juncao grass from the nursery at Uyogaplus farm. Planted on.....**



## Bio-gas Plant.

The use of elephant grasses to produce bio gas, is important toward minimizing cost in pasteurization of mushroom bags using the biogas.

**Fig2. Gas Pasteurizing system at Uyogaplus farm.**





# Microbiology Laboratory

Lack of reliable source of different varieties of mushroom spawn is the other major factor drawingback mushroom production in Tanzania.

The laboratory will enhance

- Good Supply of quality spawns of different mushroom varieties to farmers.
- Reasearch and development in domestication of wild mushroom

**Fig 3 Production of spawns by Uyogaplus Expert at University of Dar es Salaam.**



# Storage, processing, and transport facilities.

Uyogaplus has acquired a solar drier which is used in drying of fresh mushroom.

Uyogaplus lacks:

- Mushroom collection center with storage facilities
- Refrigerated vehicle to deliver fresh mushroom
- Chopping machine.

**Fig4 Solar drier at Uyogaplus farm.**





END  
“BE THE  
CHANGE THAT  
YOU WISH TO  
SEE IN THE  
WORLD”

– Mahatma Gandhi.

