

CULTIVATION OF EDIBLE AND MEDICINAL MUSHROOMS USING CASSAVA BY-PRODUCTS

MATERIALS

- Substrate required: Dried cassava peels and sticks, fresh sawdust.
- Additives eg. Rice bran or wheat bran and lime, etc.
- Packaging materials: Heat resistant polypropylene bags
- Pasteurization/Sterilization materials: Oil drum, fire wood or gas, polythene sheets or mats
- Infrastructure: incubation room, cropping house and working shade for bagging substrate
- Inoculation material: spawn (seed).

Table 4
PROXIMATE COMPOSITION OF SOME MUSHROOMS

Mushrooms	Crude Protein (%)	Fat (%)	Carbohydrate (%)	Fibre (%)
Oyster (rich in potassium and iron)	9-39	1-2	46-82	7.5-17.5
Oil-palm (rich in calcium)	30.5	2.6-3.98	49.8-58	4.4- 3.4
Button	26.3	1.8	59.9	8-10.4
Wood ear	4-9	2.1-8.3		11.9-19.8

MUSHROOM RECIPES

SAUTEED MUSHROOM

INGREDIENTS	METHOD
	Wipe mushroom with a damp napkin and season, leave to stand for about 30 mins.
	Heat oil or margarine in a saucepan
<ul style="list-style-type: none"> • 500g mushroom • 60g Margarine • 2 table spoons of soya oil • 1 small onion or pinch of powdered ginger or ground fresh ginger • 1 Tablespoon chopped fresh parsley and seasoning 	Add mushroom and stir fry over heat for 6 mins till water is completely evaporated Add onion , ginger and sauté for 2 more mins. Add parsley and serve hot as an hord'ouvra or an accompliment to a main dish

MUSHROOM OMELETTE

MUSHROOM OMELETTE

INGREDIENTS	METHOD
	Wash and dry mushrooms with a clean napkin and chop. Wash and chop onions. Wash and de-seed tomatoes and chop.
<ul style="list-style-type: none"> • Mushroom • Onions • Eggs • Oil or Margarine • White pepper • Salt • Fresh tomatoes (optional) 	Fry chopped mushrooms and onions in a little oil or margarine in a frying pan. When using tomatoes, add to the onion and mushrooms a few minutes before adding the beaten egg. Season the beaten egg with salt and pepper. Fry the omelette on both sides, by lifting with a flat knife without browning. Serve for breakfast or as a heavy snack.
	Variations: You can add a few slices of bacon to the onions or you can add dried ground shrimps

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STEPS TO FOLLOW IN CULTIVATING MUSHROOMS

USING CASSAVA BY-PRODUCTS

STEP 1



Heap of dried cassava peels and sawdust in a 1:1 ratio left to compost for 28 days. Heap is turned every four days.

The purpose of composting is to convert the raw materials of the substrate into a highly selective and nutritious medium for the growth of mushrooms.

STEP 2



Bagging of substrate into heat resistant polypropylene bags.

STEP 3



Sterilization: This is to kill any microorganism that may be present within the compost bag.

STEP 4



Inoculation: To introduce the mushroom spawn into compost bags.

STEP 5



Incubation: This is to allow the mycelium to grow through the substrate under optimum conditions.

STEP 6



Cropping House: To create the right environmental conditions i.e. high relative humidity (80-95%), good aeration, and light, for the mushrooms to flush.

STEP 7



Mushrooms growing in the cropping house on composted cassava peels and sawdust.

FLOW CHART

