INTRODUCTION
Mushrooms are edible fungi. They have umbrella-like fruiting bodies. Their most important structural substance is mycelium and fungal chitin.

WHY CULTIVATE MUSHROOMS
(a) They contain organic components like sugars, proteins and fats as well as different salts of many elements such as potassium, sodium etc. Fresh Mushroom provides between 30 and 85 calories per 100g. They contain vitamins such as Niacin, Riboflavin (B2), Vitamin D and Vitamin C, B1, B5 and B6.

Average Nutrient Composition: Protein 25 – 50%, Fats 2 – 5%, Sugar 17 – 47%, Mycelium 7 – 38% and Minerals 8 – 12%.

(b) The quality of mushrooms is better than cereal grains and legumes because all the 9 essential amino acids are present on fresh basis. The average protein content is twice that of vegetables and 4 – 12 times higher than that of fruits.
They are good for diabetic patients because of low carbohydrate; high blood pressure and heart patients because they contain cholesterol reducing substances.

Mushrooms are grown due to the fact that nutritional standards of Africans (Nigerians) inclusive are inadequate because of total dependence on starchy foods, fruits or tubers which are made into hard porridge.

THE ADVANTAGES OF PROMOTING EDIBLE MUSHROOM CULTIVATION
(a) Ability to grow on cheap carbohydrate materials
(b) Transforming various waste materials which are inedible by man into a highly valued protein for direct human consumption.

WASTE MATERIALS USED IN MUSHROOM CULTIVATION
(1) Corn cobs,
(2) Saw dust
(3) Palm waste
(4) Rice straw
(5) Plantain/banana leaves
(6) Corn husk etc.
Mushrooms grow, not directly on soils as are other crops but on raw or composed organic lignocellulose.

TECHNOLOGIES INVOLVED ARE:
(1) Culture (starter) production
(2) Spawn production and
(3) Mushroom cultivation – here we shall for now be concerned with No. 3 which is the actual mushroom production.

TYPES OF CULTIVATION
There are two types of mushroom cultivation namely indoor and outdoor cultivation. Though capital and methods play major roles; for instance, in a limited capital situation, method that requires simple equipment can be used/employed.

For indoor cultivation, mushroom are grown inside the house in basements, garages or other suitable areas within the house.

FACTORS AFFECTING MUSHROOM CULTIVATION
Climate: The prevailing climate is a very important factor in determining the area where mushroom farm will be established. The different mushrooms that can be cultivated artificially have their temperature requirements for mycelia growth. Optimum growing conditions should be provided; and some form of climate control is required in achieving maximum production and high quality product.

LOCATION
Mushroom farm and availability of substrate for growing the choice species should be given consideration.

Available Technology: It is necessary that prior to production, technology suitable for particular specie chosen should be considered. Acceptability of the specific mushroom and market demand.

Equipment and Materials: Mushroom shed or house, iron or wooden shelves, portable water, water sprayer/can or sprinkler, drum with lid, tripod stand, and iron basis/container gloves, spatula etc, should be provided.

STEPS INVOLVED IN THE CULTIVATION OF EDIBLE (OYSTER) MUSHROOM:
1. Chopping
2. Composting of substrate (waste) i.e. waste, lime and water in the proportion of 32:2:66
3. Turning: here the composed waste is scattered and mixed properly.
4. Filling: dividing the compost into known weights or quantities in the baskets, bags or beds
5. Pasteurization: This involves using moist heat to destroy the vegetative cells of unwanted micro-organisms.
6. Spawning (normally sold in the market) for inoculation. This is the process of planting (oyster) or mushroom seed in bags or beds that have been filled with substrate when cooled to about 80°
Caring: This relates to a situation where cultivation is done in boxes as such a thin layer of good garden soil (loam) is sprayed over the surface to a depth of 2 – 4cm.

Watering: Subsequent watering enhances good soil-waste relationship or in case of shelf, in the house, appearance of mushroom in 2 – 4 weeks.

Harvesting: Here the young stage of mushroom appearing is picked after development.

Marketing: Packaging and sales follow.