

## PDF - EFFECTS OF COOKING TIME ON NUTRITIONAL AND ANTI NUTRITIONAL FACTORS OF PLEUROTUS TUBER REGIUM. - researchcub.info

### 1.1 Background to the Study

Edible mushrooms are fungi and belong to the class Basidiomycetes. They have been found to provide a rich addition to the diet in the form of protein, carbohydrate, minerals, vitamins and enzymes (Manzi et al., 199). Studies on edible mushroom have resurfaced as world nutrition is observed as shifting from processed to natural food. This has almost led to warning people to stay away from natural foods (Ogazi, 2010) and Ihediohanma et al., 2014) due to uncertainty surrounding their safety. This consciousness has opened up research interest into lesser known natural foods with the inquest to identify and evaluate their consumption in order to improve quality and encourage their production and consumption. This is also in line with the recommendation of FAO (1987) in recognition of the role of minor crops in nutrition and food security.

The consumption of edible mushroom in Nigeria is seasonal. Most people only consume them because of their unique flavors and not really for their nutritional composition. At the moment mushrooms are only hunted and harvested from the wild, however if the food composition is elucidated and people get aware of certain important components of it, this will encourage cultivation and subsequent industrial production.

Pleurotus tuber regium, an edible basidiomycete occurs on both tropical and subtropical regions of the world ( Zoberi and M.H.,1972). It is a common mushroom in the southern part of Nigeria and forms large spherical to ovoid, subterranean sclerotia which sometimes measures up to 30cm in diameter (Oso,1975). The fungus infects dry wood, when it produces the sclerotium usually buried within the wood tissues but also found between the wood and the bark. Both the sclerotium and the mushroom are eaten in Nigeria. Sclerotia are used in various soup and medicinal preparations in Nigeria (Zoberi and M.H., 1973; Oso, 1975).

The fungus grows with a relative ease in the laboratory and is noted for rapid growth and for causing extensive wood decay (Okhuoya et al., 1984). According to Okhuoya and Okogbo (1990) mushroom cultivation is still in its infancy in Nigeria, and species that might be activated for food are known only in the wild state. This research aim to establish the effects of cooking time on the nutritional and anti nutritional factors of Pleurotus tuber regium which is an edible mushroom consed in Nigeria.

### 1.2 Problem Statement

Studies have been carries out on Pleurotus Tuber regium, a tropical sclerotial basidiomycetes obtained in Nigeria. Both the sclerotium and the fruit bodies are edible. Hence, there is need to determine the effects of cooking time on Nutritional and anti nutritional factors of pleurotus tuber regium, so as to make it clear to comsers the omportant components of it, establish an adequate cooking time to prevent over cooking or undercooking. This will also encourage cultivation and subsequent industrial production.

### 1.3 Objectives of the Study

The major objective of the study is to evaluate the effects of cooking time on Nutritional and anti nutritional factors of pleurotus tuber regium.

### 1.4 Research Questions

- (1) what is pleurotus tuber regium?
- (2) where is it predominantly common ?
- (3) what are the nutritional components present in it ?
- (4) what are the anti nutritional factors present in it?
- (5) what quantity of Pleurotus tuber regium will be enough for the research?

### 1.5 Significance of the Study

This study gives a clear insight into the effects of cooking time on nutritional and anti nutritional factors of pleurotus tuber regium. The findings and recommendations of these research will help to establish an adequate cooking time, encourage more consumers to demand for it, encourage more cultivation and subsequent industrial production.

#### 1.6 Scope of the Study

The research focuses on the effects of cooking time on nutritional and anti nutritional factors of eurotus tuber regium in Nigeria.

#### 1.7 Limitations of the Study

There was difficulty experienced in the procurement of pleurotus tuber regium needed for this research.

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