

BIO CHEMICAL ANALYSIS OF SOME EDIBLE SPECIES OF *LEPIOTA*

It is well known that the peoples of developing countries like India are actually suffering from malnutrition due to nonavailability of adequate amount of protein and other nutrients. Hence the peoples of low income groups and the children aged upto 6-years, which consist of nearly 80% of the population suffer from this acute problem. To save the people from acute protein malnutrition; scientists and technologists will have to work hard to search and to develop all possible sources of protein, conventional and non-conventional ones. The present study was undertaken to evaluate the protein, sugar and ash content of three edible specieses of *Lepiota*, viz., i) *Lepiota leprica* (Berk & Br.) Sacc., ii) *Lepiota mimica* Massee., and iii) *Lepiota erythrogramma* (Berk & Br.) Sacc.

The basidiocarps of *L. leprica*, *L. mimica* and *L. erythrogramma* were collected from Calcutta and its subarbs. They were dried in Oven at 60°C for 24 hrs and then powdered. From this powdered materials protein, sugar and ash estimations were done.

Protein content was estimated according to Lowery *et al* (1951) and it was measured by Beckman spectrophotometer (model DU) at 650 m μ against a blank sample and measured from standard curve drawn by plotting optical density against known amounts of crystalline bovine serum albumin.

For sugar estimation, the cold extraction procedure was followed and copper reduction method of Harding and Downs (1933) as modified by Vander Plank (1936) was adopted.

Fresh material of the test fungi were taken in porcelain crucible and placed in Muffle Furnace to make ash. The difference of weight gave the percentage of ash content.

The results obtained during the experimental period are given in the following table.

Table 1, Data (mean) showing the amount of sugar, protein and ash contents in the basidiocarps of three test fungi

Test fungi	Sugar content (gm %)			Protein	Ash
	Reducing	Non-reducing	Total	content µgm / 100 gms	content (%)
<i>L. leprica</i>	0.240	0.796	1.036	43.4	6.43
<i>L. mimica</i>	0.249	0.831	1.08	57.5	7.00
<i>L. erythrogramma</i>	0.212	0.837	1.049	45.0	6.15

From the above table it is quite evident that all the three species of *Lepiota* content sufficient amount of protein required for human consumption. However, of the three test fungi *Lepiota mimica* is a better source than the rest of the two.

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