Karnataka J. Agric. Sci., 11(2) : (548-549) 1998

Proximate Composition of Oyster Mushrooms

Oyster mushrooms (*Pleurotus* sp.) is easy to cultivate, most suitable to tropical and subtropical countries, and also have high protein content, the supplementation of these mushrooms with other food stuffs can overcome the protein deficiency. Pleurotus species are regarded as delicious due to their characteristic texture and pleasant flavour. Hence, the experiment was undertaken to determine the proximate composition of mushrooms.

Six varieities of oyster mushrooms *P.sajor-caju*, *P.florida*, *P. platypus*, P-572, *P.flabllatus* and *P.sapidus* were cultivated on paddy straw substrate at University of Agricultural Sciences, Dharwad. They were analysed for proximate composition such as moisture, fat, crude protein, ash by Anon., (1970), crude fibre by Jocob's (1959) and total carbohydrates by Raghuramulu *et al.* (1980) methods.

It is evident from table 1 that moisture content of oyster mushrooms varied from 88.9 per cent to 90.1 per cent, highest being in *P. florida* and lowest in *P. sajor-caju*. The mean moisture content was 88.9 per cent. Critical difference test indicated that the *P.sajor-caju* had significantly lower moisture content compared to other varieties at 1 per cent level, where as there was no significant differences between rest varieites, they had almost similar moisture content of 90 per cent, Bano and Rajarathnam (1988) reported that fresh fruit bodies of oyster mushrooms contain on an average 90 per cent water.

Protein content of oyster mushroom varied betwwen 18.50 per cent to 36.50 per cent. This was in agreement with the results of Shu-Ting and Philip (1993). Fat content of oyster mushroom fell in the range of 1.98 to 2.98. This was in the range of fat content of *Pleurotus* sp. (1.08 to 9.4 per cent on dry weight basis) as reported by Bano and Rajratnam 1988. Fibre content varied from 7.4 to 8.9 g per cent with mean value of 7.8 per cent. This result was in agreement at the lower scale with the report of Shu-Ting and Philip (1993).

The total carbohydrate content of oyster mushrooms varied significantly except between *P. flabellatus* and P. 572. The significant differences between varieties for the composition of mushrooms species are affected by the diversity of genetic make up that leads to strain differences and varietal

Table 1. Composition of Oyster (*Pleurotus spp.*) Mushrooms

Varities	Moisture	Protein	Fat	Ash	Crude fibre	Total carbohydrate
	9 %	9 %	9 %	9 %	9 %	9 %
P. florida	90.1	28.8	1.9	10.4	8.0	50.6
P.sajor caju	88.8	36.4	2.2	10.6	8.8	41.8
P.flabellatus	90.0	33.9	2.1	9.9	7.7	46.1
P.sapidus	90.0	18.5	2.2	9.7	7.4	61.9
P.platypus	90.0	35.1	2.5	11.3	7.3	43.6
P.572	90.0	32.6	2.0	11.2	7.5	46.5
(CD at 1%)	(0.3055)**	(2.2600)**	(0.3055)**	(0.4862)**	(0.1120)**	(1.9814)**
SEm ±	(0.070)	(0.523)	(0.070)	(0.113)	(0.023)	(0.459)
Mean	88.9	30.9	2.2	10.6	7.8	48.5

* Moisture on fresh weight basis.
** Significant at 1 percent level.

characteristics and by envirmomental conditions including nature of substratum.

The content of protein in *P.sajor-caju* (4.7 g). was in agreement with Sethi and Anand (1985) and Crude fibre and ash content was in agreement with Sivaprakasam (1987).

The total carbohydrate content of all the varieites had signifiant difference, may be due to varietal differences. Higher amount was observed in *P.sapidus* and lesser in *P.platypus*.

In conclusion it may be found that mushrooms are rich in protein, low in fat and adequate in crude fibre content.

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(Received : October, 1997)

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