A60

TECHNOLOGY AND NUTRITIVE VALUE OF CHINESE MUSHROOM —SAUSAGE

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SUMMARY: Chinese sausage is one of the most famous meat products in China. On the basis of technology of chinese traditional sausage,We have manufactured chinese Guangdong sausage,Sichuan sausage and different Kinds of chinese mushroom — sausage. Their sensory characteristics and major nutrients have been analysed. It designated that the protein content of chinese mushroom —sausage was 21. 07—31. 72%, no significantly ($P>0.05$) than that of chinese traditional sausage and the fat content was 35. 33—48. 88% ($p<0.05$). Its appearance,colour,tissue state,cutting property,flavour and taste etc. were also improved, but no significantly ($P>0.05$).

Key words: Chinese mushroom—sausage, Technology, Nutritive value.

INTRODUCTION: Chinese sausage is one of the famous meat products in China. And the edible mushroom charatterized by its rich nutrition,task and digestibility rate,is quite popular with the consumers delicious. Both the ancient nutrition and the recent researches indicate that the edible mushroom has a sound function in human health care.

According to the technology of the Chinese sausage(Guangdong Sausage,Sichuan Sausage),for the last years,we have done a lot of researches into the technology of the Chinese mushroom sausage with different contents of mushroom supplements.

This article mainly covers the technology and its nutritive and edible values of the chinese mushroom sausage.

MATERIALS AND METHODS: Add respectively the fresh mushroom with a percentage of 10%,20%, 30%,40% or the dry mushroom with a percentage of 1%,2%,3%,4% to the pork (lean & backfat 7 to 3 in proportion),then analyse the main nutritive composition of the sausage manufactured this way (Chinese mushroom sausage) and compare it with the sausages processed traditionally.

Table 1. Groups with different contents of fresh & dry mushroom (%)

Group	Control group	fresh				dry			
	A	B1	B2	B3	B4	B5	B6	B7	B8
Contents	0	10	20	30	40	1	2	3	4

Table 2. Ingredients (in gram) for Chinese Sausage in our labs.

Item	Pork lean	Pork backfat	Salt	Sodium Nitrate	Sugar	Spirits	Sodium glutamate	5—spice powder	glucose	vit. c	Pepper
Guangdong Sausage	706	300	2. 5	0. 3	70	10	2	1. 5	2	0. 4	2
Sichuan Sausage	700	300	2. 5	0. 3	10	10	2	1. 5	2	0. 4	2(huajiao)

Mince the pork lean into cubes of 0. 5—0. 8cm^3 and pork backfat 0. 8—1. 0cm^3. Make sure the chopped meat is fully mixed with all the perfumes mentioned above and the fresh mushroom liquid or the dry mushroom powder that have been processed. 30 minutes later ,it can be filled into the casings. After that remember to prick the casings to let out the air inside. Then when all the casings are filled, knot the casings every 10 cm

and get them washed in lukewarm water once or twice. Dry them in the air and have them dried in the oven by 50—60 ℃ about 36—48 hours, and smoked for 6—8 hours. After they have been cooled, you can get the decilous chinese mushroom sausages. Within one week, according to the "Hygienic standard of Chinese Sausages (GB 10147—88)" and the "Chinese Hygienic standard of Food and the Methods of Food Hygienic Analysis (Physical and Chemical Section) (GB 5009—85)". We have carried out the sensory evaluation and analyzed its content of protein, fat and moisture etc..

The analysis of variance was used to compare the results obtained sensory evaluation and chemical compositions.

RESULT AND DISCUSSION: Table 3 is a list of the evaluation score of sensory characteristics and chemical compostions for the chinese sausage and the chinese mushroom sausages.

Table 3. Evaluation score of sensory characterictics and chemical compostion (%) in Groups sausage.

Group	A	B1	B2	B3	B4	B5	B6	B7	B8
Score	8.25	8.52	8.19	7.96	7.76	8.39	7.74	6,89	6.58
Protion	24.94	26.64	25.55	23.44	24.30	24	27.10	31.72	21.07
Fat	42.71	48.88	39.98	46.21	41.84	46.65	43.85	41.07	35.33
Moisture	18.42	18.95	20.91	18.86	20.21	18.90	21.49	22.31	23.50

The sensory evaluation scores for which no statistically significant difference ($P>0.05$) were found related in general to the appearance, tissue state, colour, smell and taste. However, the group with 10—30% fresh mushroom supplements and the groups with 1—3% dry mushroom supplements are much superior in appearance, colour, tissue state slicing property, especially the flavour and the taste.

It can be seen that compared with the traditional Chinese Sausages, the contents of protein in the mushroom sausage which range from 21.07—31.72% ($P>0.05$) have no significant differences, unlike its fat contents from 35.33—48.88% ($P>0.05$). By a synthetical analysis of Both the sensory indexes and the nutritive contents, the groups with 10—30% fresh mushroom supplements or 1—3% dry mushroom are much superior to other groups.

CONCLUSIONS: The experiment shows that the Chinese mushroom sausages contain relatively high protein and fat contents and have sound nutritive values. Most important of all, its colour and lustre, tissue state and flavour as well as its edible value have been greatly improved.

From above we can say that the mushroom sausage is much superior both in its nutritive value and in its edible value. In addition, we also find in the experiment the mushroom should be processed in hot water before put into use, or else there will be casings solution and small pricks.

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