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CHARACTERIZATION OF PROTEIN IN DENDENG LAMBOK AS A TRADITIONAL MINANGKABAU FOOD - INFLUENCED BY COOKING METHODS



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MINANGKABAU FOOD

One of the traditional dishes in Minangkabau is *dendeng*. *Dendeng* is one of the original traditional food from Minangkabau.



WEST SUMATERA




DENDENG LAMBOK




DENDENG KARIANG

INGREDIENT OF DENDENG



SILVER SIDE

Dendeng lambok is usually beaten the meat is beaten to flat with a thickness of approximately 5-7 mm, which is not fried until crispy with a moisture content of approximately 45 - 65%.



SPICES

Before frying, beef is boiled using spices such as coriander, garlic, cin namon, bay leaves and lemongrass until tender.


THE EFFECT OF COOKING

+

DIGESTIBILITY PROTEIN.
increase in the digestibility of proteins as a result of the denaturation of proteins


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MAILLARD REACTIONS
occurrence of Maillard reactions due to the reaction of reducing sugars with amino acid.



NUTRITION
inactivation of antinutrient compounds

PROTEIN
the protein will also experience racemisasi, lisisoalanin and lantionin which cannot be digested by digestive enzymes in the human body



TEMPERATURE

150 - 200°C

CONVENTIONAL FRYING

<100°C

VACUUM FRYING

The solution

To minimize damage to the nutritional value of *dendeng lambok*, a vacuum frying method can be used.

Materials

Meat in this study was obtained from Bandar Buat market, Padang, Indonesia. The spices i.e. coriander, galangal, garlic, tamarind, pepper were bought from local market, Indonesia.

The equipment need, equipment for cooking *dendeng lambok*, HPLC (high performance Liquid Chromatography), analytical oven, equipment for digestibility test and others. This research does in faculty of technology agricultural Andalas University laboratories, Laboratories Faculty of Animal husbandry IPB Bogor, Laboratories Faculty of GMSK IPB Bogor and Laboratories Saraswanti Indo Genetech Bogor.

DENDENG LAMBOK PROCESSING

- 1** Dendeng was produced using two different of cooking methods (conventional frying and vacuum frying).
- 2** Before the frying process, meat is cut (3cm x 4cm x 1cm) and boiled using spices for 30 minutes.
- 3** It was hit using amilstone until it was rather flat (6cm x 4cm x 2mm).
- 4** Conventional frying on dendeng lambok, it is fried with deep-fat frying for 5 minutes (175°C), vacuum frying is fried for 15 minutes (85°C) and 12 mmHg pressure.

Results and discussion

Table 1. Water content, fat, protein ash and carbohydrate by different of fresh met and products of dendeng lambok

Composition	Fresh meat	CF	VF
Water content (%)	71.79	55.14	61.61
Fat content (%)	0.99	10.65	18.16
Protein content (%)	5.74	13.51	13.78
Ash content (%)	3.88	4.23	4.13
Carbohydrate (by different)	17.6	16.47	2.32

CF = Conventional Frying
VF = Vacuum Frying

