DEVELOPMENT OF PET FOOD FROM POULTRY SLAUGHTER HOUSE BYPRODUCTS

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DEPARTMENT OF MEAT SCIENCE AND TECHNOLOGY

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CERTIFICATE

This is to certify that the thesis entitled "**DEVELOPMENT OF PETFOOD FROM POULTRY SLAUGHTER HOUSE BYPRODUCTS**" submitted in part fulfilment of the requirements for the degree of **MASTER OF VETERINARY SCIENCE** in **LIVESTOCK PRODUCTS TECHNOLOGY** to the **TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY, CHENNAI-51**, is a record of bonafide research work carried out by **BRINDHA. N**, under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

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Place: Chennai - 7

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ABSTRACT

Title	:	**DEVELOPMENT OF PET FOOD FROM POULTRY SLAUGHTERHOUSE BY-PRODUCTS**
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A study on the development of pet food from poultry slaughterhouse by-products was undertaken. The developed pet food was evaluated for their nutritive and shelf life quality parameters. In the study pet food was prepared utilizing poultry by-product meal (viz. chicken head and feet) and cruciferous vegetable by-product meal (viz cabbage and cauliflower) along with incorporation of suitable plant binders and animal fat to standardise the product to appropriate consistency.

The proximate composition of the prepared pet food as feed basis for moisture, crude protein, ether extract, crude fibre, total ash, nitrogen free extract and metabolizable energy were 4.57%, 25.41%, 17.68%, 1.32%, 9.82%, 45.77% and 420.15 kcal /100g, respectively. The proximate composition of pet food on dry matter basis for crude protein, ether extract, crude fibre, total ash, nitrogen free extract and metabolizable energy were 26.63%, 18.52%, 1.38%, 10.29%, 43.17% and 422.28kcal/100g, respectively. The thiobarbituric acid value, tyrosine value and total viable count of the prepared pet food was in increasing trend and yeast and mould

count could not be detected up to 50 days of storage period. The fatty acid, amino acid and mineral profile also indicated the importance of nutritive value in the developed pet food. The pet acceptability studies also revealed acceptability of the pet food by pets. The cost per kg of production of pet food is Rs.70.

The findings of this study indicated a simple, appropriate and cost effective technology with least need for elaborate machinery combined together would enable entrepreneurs to undertake pet food manufacture. The preparation of pet food utilizing poultry slaughterhouse by-products and cruciferous vegetable waste in the potential cottage industry will also partly alleviate the problem of environmental pollution and encourage entrepreneurship of unemployed rural youth.