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Policy paper**Pet nutrition**

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Abstract

In today's rapidly growing world, proper maintaining the health of dogs and cats by their owners is necessary, and proper wholesome feeding is the main component for proper health maintenance. The quality life of pets with less chance of diseases and a healthy, active life is assured by quality feedstuff and nutraceutical supplementation. As a result, food quality is improving daily to provide complete and balanced nutrition for pets. Also, product safety should be ensured before bringing it into the market. With improving quality, a better life can be guaranteed for all dogs and cats, and their owners can rest assured of their pets' health.

Keywords: Maintenance, Feeding, Supplementation, Balanced³, Health

Introduction

Conceptual knowledge in nutrition is expanding daily to include a particular emphasis on using the feed to promote a complete state of healthy being and disease-free good health. Nowadays, pets are considered part of a family, and the owner feels it is his/her responsibility to provide the best food to their pets for their well-being; as a result, dogs and cats enjoy a longer and healthier life than ever. A veterinarian's responsibility is to discuss and share knowledge on the nutrition of dogs and cats with the owners to ensure proper nutrition for pets.

Nutrition of dogs and cats

A balanced feed should be formulated for dogs and cats, which should include two steps:-

1. Noting down the requirements of the animal
2. The selection of ingredients in specific proportions will furnish the animal's needs.
 - Dogs differ from cats as they are not strict carnivores but fall under the omnivorous category. Hence, a dog diet can be formulated using no animal tissue-based ingredients.
 - Cats, on the other hand, are strict carnivores. So animal source feedstuffs should be included in the diet of cat minimum of about 30 - 40%, as it will increase the acceptability of food by the cat.

Dogs and cats food contains major six nutrients components:-

1. Water
2. Carbohydrate
3. Protein
4. Fats
5. Mineral
6. Vitamins
 - The ability to digest lactose depends on the activity of beta-galactosidase in the intestine. Beta-galactosidase activity is higher in kittens. Recommended levels of fibres in the diet for cats and dogs vary between 3.5 - 6 %. Fibre absorbs water and helps in the peristaltic movement of the G.I. tract. Cats have limited desaturase enzyme activity involved in Essential Fatty Acids metabolism. Also, taurine is the 11th essential amino acid required by cats.
 - All other species conjugate glycine with bile acids to form glycocholic acid. Cats use taurine instead of glycine and form taurocholic acid. Taurine is found in muscles, retina, and CNS, making cats obligate carnivores.
 - Desired Ca: P ratio in cats is 1:1
 - Desired Ca:P ratio in dogs is 4:1

Feeding management of dogs

Dogs can be fed successfully in numerous ways. These include:-

- Portion control feeding
- Free choice or ad libitum feeding
- Timed feeding

Feeding of cats

- Cats are strict carnivores. Their intestine is adapted for high fat and high protein diet, high energy and low bulk diet.
- Cats often eat and drink in limited quantities when fed on an ad libitum diet.
- Arachidonic acid must be supplied by animal fat in the diet.
- The feline liver cannot produce enough taurine. So taurine must be fed from outside through dietary meat, fish or poultry products.
- Vitamin A also should be supplied through diet.
- Arginine and niacin requirements should be met through diet.
- The protein requirement is highest for cats.

NUTRIENT REQUIREMENT OF DOG AND CATS

Nutrient	Dog	Cat
Protein, g	22	28
Fat, g	5.5	9.0
Calcium, g	1.1	1.0
Phosphorus, g	0.9	0.8
Arachidonic acid, g	NR	0.02
Taurine, mg	NR	100
Values expressed as per 400 Kcal ME which is approx. present in 100 g DM in a typical commercial pet foods		

Frequency of feeding

1. Dogs should be offered fresh food at least once a day.
2. Cats prefer frequent small meals throughout the day and night.
3. Dry food offered as a free choice is the most practical means of feeding.
4. Fresh food should be offered daily to mitigate the risk of spoilage or contamination that may obstruct average consumption.

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