

**Pengaruh Wortel (*Daucus carota*), Jahe (*Zingiber officinale* Roscoe)
dan Temulawak (*Curcuma xanthorrhiza* Roxb) Terhadap Status
Kesehatan Anak Kucing**

**The Effect of Carrot (*Daucus carota*), Ginger (*Zingiber officinale*
Roscoe) And Temulawak (*Curcuma xanthorrhiza* Roxb) Against
Kitten Health Status**

Julius Mar'ie Sugata¹, Miyayu Soneta Sofyan²

¹D3 Student Veterinary Paramedics, Faculty of Vocation, Airlangga University,
Surabaya 60115, Indonesia

²Lecturers from Department of Health, Vocational Faculty, Airlangga University,
Surabaya 60115, Indonesia

*email: miyayu@vokasi.unair.ac.id

ABSTRAK

Anak kucing diklasifikasikan dalam tahapan pertumbuhan kehidupan dan memiliki kebutuhan energi dan protein yang tinggi. Saat memberi makan anak kucing disarankan menggunakan bahan yang sangat mudah dicerna dan berbagai nutrisi untuk membantu perkembangannya sehingga menghasilkan kucing dewasa yang sehat. Sistem pencernaan kucing bertanggung jawab untuk mencerna makanan dan menyerap nutrisi yang dibutuhkan tubuh. Gastrointestinal adalah rumah bagi mikroflora, juga dikenal sebagai bakteri 'menguntungkan', yang berkontribusi pada kesehatan pencernaan dengan meningkatkan kesehatan secara keseluruhan jika seimbang dan mendukung pemrosesan makanan dan nutrisi. Sistem pencernaan mencakup populasi sel sistem kekebalan yang padat, yang berarti saluran pencernaan

kucing adalah salah satu tempat pertama sistem kekebalan menghadapi patogen potensial atau hal lain yang mungkin memerlukan tanggapan kekebalan.

Kata Kunci: Pembibitan / Anak Kucing, Status Kesehatan, Jahe, Wortel, Temulawak, Berat Badan.

ABSTRACT

Kittens are classified in the stages of life growth and have high energy and protein requirements. When feeding kitten is recommended to use ingredients that are very easy to digest and various nutrient to assist the development to produce healthy adult cats. The cat's digestive system is responsible for digesting food and absorbing the nutrients the body needs. The gastrointestinal is home of microflora, also known as 'beneficial' bacteria, which contributes to digestive health by improving overall health when balanced and supports food and nutrition processing. System digestion includes a dense population of immune system cells, which means the cat's gastrointestinal tract is one of the first places the immune system faces potential pathogens or other things that might require an immune response.

Keywords: Disgetion / Kitten, Health Status, Ginger, Carrot, Temulawak, Body Weight.

INTRODUCTION

Cats are carnivores. The digestive system of cats adapts in such a way that they are only able to digest animal elements both mechanical and enzymatic. The sense of taste becomes very important which is the mechanism by which animals choose their food to meet their daily needs. Cats do

not have sweet tasting derived from vegetable elements, but cats are more adaptable to bitter tasting.

These bitter receptors are very important for detecting and preventing cats from ingesting bitter nutrients, which are commonly found in poisonous plants, animals or toxic materials. Cats like the

solid and moist form of feed and like the fishy taste and dislike powder, sticky or oily feed. Cats that are carnivores are very dependent to meet the nutritional needs of animal-sourced feed (Triakoso, 2016).

Research by Hewson-Hughes et al (2011) provides a very clear picture of the nutritional needs of cats, especially macronutrients namely protein, fat and carbohydrates. In a day a cat needs about 26 grams of protein, 9 grams of fat and 8 grams of carbohydrates, which are the nutritional elements equivalent to the calorie needs of 52% of protein, 36% of fat and 12% of carbohydrate. In addition this study also revealed that cats have a calorie adequacy limit carbohydrate that is equal to 300kJ / day. When the cat has reached this limit, it will suppress other food intake both protein and fat (Hewson-Hughes AK, 2011).

Cats need essential nutrients such as arginine, thiamine, taurine, vitamin A, vitamin D, Niacin, linoleic acid, arachidonic acid. Arginine is needed in the urea cycle. As a protein eater, the rest of metabolism in

the form of ammonia will be very abundant. In cats that feed arginine-deficient feed, cats will experience hyperammonemia in one hour. Arginine is needed by the body to convert ammonia into water-soluble urea and can be excreted in urine. (Triakoso, 2016)

MATERIALS AND METHODS

The research has done in Mr. Firlian's pet care in Pekukuhan Hamlet, Pekukuhan Village, Mojosari District, Mojokerto Regency, East Java for one month, from 17 February 2020 to 9 March 2020. On 27 January 2020 proximate Analysis Examination of cat feed samples was conducted by Mr. Firlian in the Veterinary Testing and Feed Analysis Unit of the Faculty of Veterinary Medicine, Airlangga University. Using seven female kitten and eight male kitten.

Research variables and measurement

The variables in this study can be identified as exogenous and endogenous

variables. Where the feeding of cats with carrots, ginger, and temulawak as an independent or exogenous variable and body weight and kitten health as a dependent or endogenous variable.

RESULTS AND DISCUSSION

The results from examining cat feed on pet care owned by Mr. Firlian produces the following:

Table 1. Nutritional content of feed.

Ingredients	BK%	PK%	LK%	SK%	ABU%
Cat Feed	20,12	12,14	5,4	0,65	1,63

Source: Results of analysis of estimated cat feed in pet care Firlian from the Veterinary testing unit, feed analysis from the Faculty of Veterinary Medicine, Airlangga University.

Table 2. Kitten Weight and Digisbility Based on Feces

Kitten	Parameter	Weeks			
		I	II	III	IV
1	Body Weight (gr)	407,85	409	412,5	415,5
	Daily Feed (gr)	150	150	150	150
	Feces	Soft	Normal	Normal	Normal
2	Body Weight (gr)	415	417,5	419	420,5
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Normal	Soft	Soft
3	Body Weight (gr)	475,5	477	479	480
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Soft	Normal	Normal
4	Body Weight (gr)	504,5	506	507,5	509
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Normal	Normal	Normal
5	Body Weight (gr)	503,5	505	507	509
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Normal	Normal	Normal
6	Body Weight (gr)	456	457	458,5	459
	Daily Feed (gr)	150	150	150	150
	Feces	Soft	Soft	Normal	Normal
7	Body Weight (gr)	443,5	445	446,5	448
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Normal	Soft	Normal
8	Body Weight (gr)	502	504	506,5	509,5
	Daily Feed (gr)	150	150	150	150

	Feces	Normal	Normal	Normal	Normal
9	Body Weight (gr)	483	485,5	487,5	489
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Normal	Normal	Soft
10	Body Weight (gr)	407	409,5	408	Dead
	Daily Feed (gr)	150	150	150	Dead
	Feces	Soft	Soft	Soft	Dead
11	Body Weight (gr)	415,5	417	Dead	Dead
	Daily Feed (gr)	150	150	Dead	Dead
	Feces	Normal	Soft	Dead	Dead
12	Body Weight (gr)	464,5	465	467,5	470
	Daily Feed (gr)	150	150	150	150
	Feces	Normal	Soft	Soft	Normal
13	Body Weight (gr)	407,5	409	Dead	Dead
	Daily Feed (gr)	150	150	Dead	Dead
	Feces	Soft	Soft	Dead	Dead
14	Body Weight (gr)	452	454,5	456	459
	Daily Feed (gr)	150	150	150	150
	Feces	Soft	Normal	Normal	Soft
15	Body Weight (gr)	410,5	413	Dead	Dead
	Daily Feed (gr)	150	150	Dead	Dead
	Feces	Normal	Soft	Dead	Dead

The author uses Body Condition Scoring to determine the body goal of a kitten. The following is Body Condition Scoring :

The parameters of each score are:

1. When viewed from above, the animal's waist still looks shaped
2. When viewed from the side of the ribs palpable 1 layer of muscle

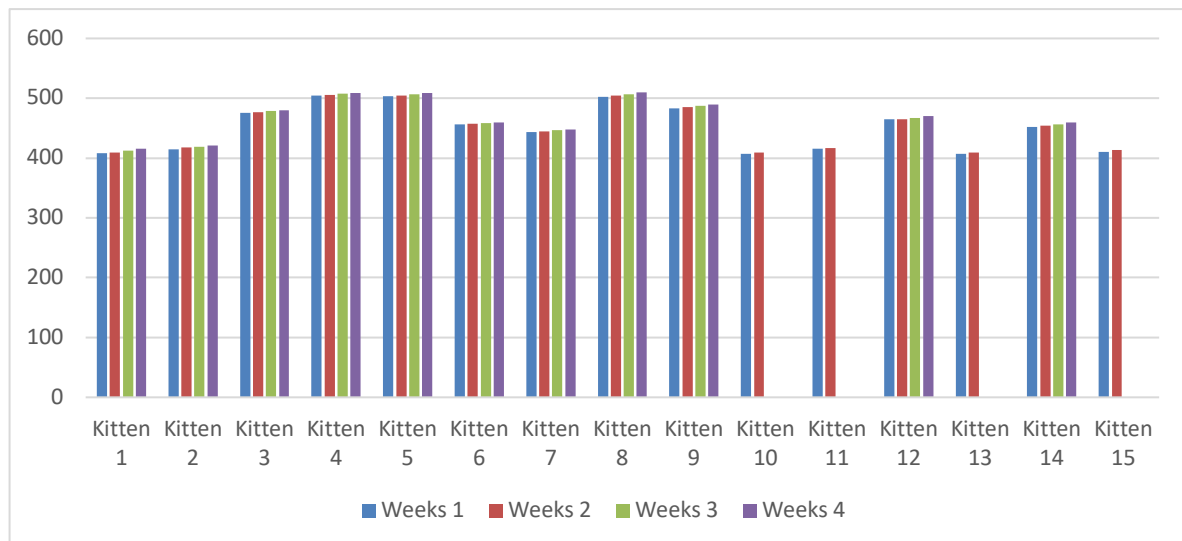
3. When viewed from the side, the lower abdominal area looks slim, not too thin but not palpated with excess fat.

For animals with long hair, it needs to be touched, because it tends to look "fat" or normal even though the animal could actually be underweight. Body condition score (BCS) used is a score of 1-9, where the thinnest score is 1 and the fattest 9. The ideal number is at 4-5. (Dede, 2012).

It is known from the data above that the

kitten weight shows that every week there is an increase of 2-5 gr. Calculation of kitten body weight is done every day using baby scales and then divided on average, so that the average weight can be known. The following is a graph of weight results per week.

Figure 1. The Weight Chart of the Week Kitten Body



From the graph data above, it can be seen that the weight of the kitten has changed and some has not. This is influenced by the consumption of ginger extracts in cat food to warm the body and is also believed to have anti-inflammatory properties that serve to relieve pain (Muchlis, 2020).

SUMMARY

From the feeding data, the role of ginger and ginger has a role that is no less important for the health of cats. The occurrence of dead cats in this study has the possibility that the cat has a fairly weak immune and poor digestive system that makes it possible for digestive diseases such

as diarrhea, after diarrhea appears usually the cat has decreased appetite.

With the existence of temulawak extract in cat food, it can be used to help increase the cat's appetite so that when the appetite starts to improve it is usually accompanied by a digestive system that starts working normally.

REFERENCES

- Dede, F. (2012). *Berat Badan Ideal untuk Kucing*. Banjarmasin: Salmon Petshop.
- Hewson-Hughes AK, V. H.-H. (2011). *Geometric analysis of macronutrient selection in the adult domestic cats, Felis catus*. Jakarta: J Exp Biol.
- Muchlis, A. (2020). *Manfaat jahe yang tidak cuma penghangat badan tapi juga penangkal virus corona*. Jakarta: Kompas.com.
- Triakoso, N. (2016). *Kesehatan dan Resiko Penyakit Akibat Pakan Kucing. Pakan dan Kucing*.