The effect of tempe on preventing diarrhea of rabbtis against Escherichia coli

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Abstrak

ABSTRAK
Studi pengaruh konsumsi temps sebagai sumber besi dan sang terhadap pencegahan diare telah dilakukan pada kelinci yang diinokulasi dengan E. coli. Lima puluh satu ekor kelinci jantan berumur 8 minggu dibagi dalam tiga grup. Kelinci-kelinci tersebut masing-masing ditempatkan dalam sebuah kandang yang terbuat dari bambu, makan dan minum diberikan ad libitum.

Selama lima minggu, dua dari tiga grup diberi ransum 25 % dari kebutuhan normal sehari per ekor. Maksudnya supaya kelinci-kelinci tersebut menjadi kelaparan Grup kedelai dan grup tempe kemudian masing-masing diberi ransum kedelai dan ransum tempe selama empat minggu. Pada akhir minggu keempat ketiga grup tersebut diinokulasi dengan bakteri E. coli serotipe 0126K71(B)F12 sebanyak 2x2x108 koloni.

Berat badan, kandungan seng dan besi dalam serum serta sIgA dari kelinci-kelinci tersebut ditentukan setiap akhir periode adaptasi, periode kelaparan, periode eksperimen dan beberapa hari setelah periode infeksi.

Hasilnya adalah sebagai berikut:
Berat badan, kandungan seng dan besi serum dari ketiga grup, sama pada akhir periode adaptasi. Berat badan dan kandungan besi dan seng dalam ransum grup kedelai dan grup tempe turun pada akhir periode kelaparan. Penurunan tersebut disebabkan karena ransumnya dikurangi.

Berat badan grup kedelai dan grup tempe masing masing naik 35 % dan 41 % pada akhir periode eksperimen. Kenaikan berat badan dari kedua grup tersebut berbeda nyata. Kandungan seng dan besi serum grup tempe lebih tinggi dari pada grup kedelai. Hal ini mungkin karena absorpsi seng dan besi lebih baik pada grup tempe dari pada grup kedelai.
<hr><i>ABSTRACT
Regular consumption of tempe as a source of iron and zinc on preventing diarrhoea of rabbits inoculated with E. coli has been studied.

Fifty one male rabbits, 8 weeks of age were divided into three groups. All the rabbits were housed individually in bamboo cages, feed and drink were given ad libitum. During the following 5 weeks, 2 of the 3 groups were fed only 25 % of the average normal daily intake to cause starvation.

Soybean and tempe groups (of the starved rabbits) were fed with soybean and tempe rations respectively for four weeks before being infected. All groups including the control group at the end of the experimental period were inoculated with 2x2x1O8 colonies of erlterotoxigenic E.Coli serotype O126K71(B)H2. Body

weight, serumzinc and iron contents and sIgA of all the rabbits were determined at the end of the adaptation, starvation, experimental and infection periods.

The results were as follows:
During the adaptation period the feed intake was the same. The feed intake during the starvation period decreased to 25 % per rabbit per day for two groups. The feed intake of the soybean and tempe groups during the experimental period were almost the same, but changed during the infection period.

Body weight, serum zinc and iron of the three groups were similar at the end of the adaptation period. Body weight, serum zinc and iron in two groups were reduced proportionally at the end of the starvation period.The decrease was caused by the reduction of the standard ration.

The body weight of the soybean and tempe groups increased with 35 % and 41 % respectively, at the end of the experimental period. The increase of the body weight between those two groups was significantly different. The serum zinc and iron of the tempe group were significantly higher than that of the soybean group.</i>