

## INTISARI

**Wahyuningtyas, Rizky. 2016. “Perbandingan Penggunaan Broiler Satu (BR1) dan Campuran Kacang Merah (*Phaseolus vulgaris* L.) Terhadap Kadar Kalsium Serum Darah Tikus Putih Jantan Galur Wistar (*Rattus norvegicus* L.)”.Program studi D-IV Analis Kesehatan, Fakultas Ilmu Kesehatan Universitas Setia Budi.**

Kacang merah sudah menjadi makanan pokok bagi masyarakat yang baik untuk dikonsumsi, akan tetapi dalam kacang merah mengandung senyawa antigi yang yaitu asam fitat yang berpengaruh terhadap penurunan berbagai mineral dalam tubuh contohnya kalsium. Penelitian ini bertujuan untuk mengetahui perubahan kadar kalsium serum darah tikus setelah pemberian kacang merah.

Penelitian ini menggunakan 28 ekor tikus, diadaptasi 2 minggu dibagi dua kelompok yaitu dengan pemberian BR1 dan campuran BR1 dengan kacang merah, kemudian tikus diambil darahnya lewat mata. Parameter uji kadar kalsium adalah serum darah tikus menggunakan metode photometric enzymatic, kemudian dilakukan uji statistik independent sample t-tes.

Hasil kadar kalsium serum darah tikus awal (minggu ke nol) sebelum pakan BR1 dan campuran pakan BR1 dengan kacang merah sebesar (7,7;8,4) mg/dl, sedangkan pada pemberian pakan BR1 dan campuran pakan BR1 dengan kacang merah minggu pertama dan kedua berturut-turut (8,5;9,3;7,6;6,9) mg/dl. Perubahan persentase pada pemberian pakan BR1 dan setelah pemberian campuran pakan BR1 dengan kacang merah pada minggu pertama dan kedua terjadi peningkatan dan penurunan kadar kalsium berturut-turut (15,58;20,77;9,52;17,85)%. Hasil uji kadar kalsium darah tikus mengalami penurunan, hal ini karena kacang merah memiliki kandungan zat senyawa asam fitat yang menyebabkan tidak terserapnya kalsium dalam darah secara maksimal.

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**Kata Kunci** : Kadar Kalsium, Broiler Satu (BR1) Asam Fitat, Kacang Merah, Tikus Putih Jantan

## ABSTRACT

**Wahyuningtyas, Rizky. 2016. Comparison between the Use of Broiler One (BR1) and Mixture of Red Beans (*Phaseolus vulgaris* L.) For Calcium Blood Serum of White Rats Wistar Strain (*Rattus norvegicus* L.)". The Study Program of Four-Year Diploma (D-IV) in Medical Laboratory Technology. The Faculty of Health Sciences. Setia Budi University.**

Red beans have become the staple food for Indonesian that are good to be consumed; however, they contain anti-nutritive compound, phytic acid, which influences a decrease in various minerals in the body, one of which is Calcium. This study was aimed to investigate the changing of Calcium levels of rat's blood samples after given red beans.

This research used 28 rats, which were adapted in 2 weeks and divided into two groups. One group was provided with BR1 and the other group was given the mixture of BR1 and red beans. The rats' blood was later taken through eyes. The parameters for testing Calcium levels were rats' blood samples and the samples were analyzed using photometric enzymatic method. Independent sample t-test was later carried out.

The initial Calcium levels of rats' blood samples (week 0) before provided with BR1 and the mixture of BR1 and red beans were 7.7;8.4 mg/dl, while the Calcium levels at week 1 and week 2 are 8.5;9.3 and 7.6;6.9 mg/dl, respectively. There were an increase and a decrease in percentage of providing BR1 and BR1 and red beans mixture at week 1 and week 2 of 15.58; 20.77 and 9.52; 17.85 %. The results of Calcium levels in rats' blood decreased. This was so due to phytic acid content in red beans which blocks the absorption of Calcium in the blood.

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Keywords: Calcium level, Broiler One (BR1), Phytic acid, red beans, male white rats