Pengaruh pemberian fortifikan nafeedta dalam tepung tempe terhadap kadar zat besi plasma darah tikus (rattus norvegicus l.) jantan galur sprague-dawley = The effect of fortificant nafeedta inserted in tempeh flour on plasma iron concentration in male sprague dawley rats (rattus norvegicus l.)

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Abstrak

ABSTRAK
Telah dilakukan penelitian yang bertujuan untuk mengetahui pengaruh pemberian fortifikan NaFeEDTA dalam tepung tempe terhadap kadar zat besi plasma darah tikus (Rattus norvegicus L.) jantan galur Sprague-Dawley. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL), terdiri atas 25 ekor tikus putih jantan yang dibagi ke dalam 5 kelompok perlakuan, yaitu kelompok kontrol normal (KK1) yang hanya diberikan CMC 0,5%, kelompok kontrol perlakuan (KK2) yang diberikan suspensi tepung tempe tanpa fortifikan dan kelompok perlakuan 1, 2, 3 (KP1, KP2 dan KP3) yang diberikan suspensi tepung tempe dengan fortifikan NaFeEDTA dosis 1,35 mgFe/ kgBB, 2,7 mgFe/ kg BB, dan 5,4 mgFe/ kgBB. Pemberian bahan tersebut dilakukan secara oral selama 21 hari berturut- turut. Pengambilan darah dilakukan pada hari ke-0 dan setelah perlakuan hari ke-21. Kadar Fe diukur dengan AAS (Atomic Absorption Spectrophotometer). Hasil uji anava satu arah dan LSD (P < 0,05) terhadap sampel menunjukkan terdapatnya perbedaan nyata pemberian fortifikan NaFeEDTA dalam tepung tempe terhadap kadar zat besi selama 21 hari. Peningkatan kadar zat besi tertinggi akhir penelitian (t21) terjadi pada KP 3, yaitu sebesar 27,40% terhadap KK1 dan 24,38% terhadap KK2.
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ABSTRACT
The study has been conducted to know the effect of fortificant NaFeEDTA administration on tempeh flour to the plasma iron concentration of male rats (Rattus norvegicus L.). Twenty five male rats were divided to five groups consisting of normal control group (KK1) which was administered with CMC 0,5%; treatment control group (KK2) which was administered with tempeh flour without fortificant; and three treatment groups which were administered with tempeh flour and fortificant NaFeEDTA with different doses; 1,35 mgFe/KgBw (KP 1); 2,7 mgFe/KgBw (KP 2); and 5,4 mgFe/KgBw (KP 3). Treatments were carried out orally within 21"
"consecutive days. Blood is tested before treatment (t0) and after 21 days of treatment (t21). The plasma iron concentrations were measured by Atomic Absorption Spectrophotometer (AAS). Result was statistically tested with SPSS. One-way anova test (P < 0,05) and post hoc LSD test (P <0,005) showed that adding fortificant NaFeEDTA is giving a differences iron concentrations at blood levels of rats from the first day until last day of treatments. Increased iron levels are highest in the KP3 at day 21, which increased 27.40 % compared with KK 1 and 24,38% compared with KK 2.