Pengaruh pemberian fortifikan NaFeeDTA dalam susu kedelai terhadap kadar zat besi plasma darah tikus (rattus norvegicus l.) jantan galur sprague-dawley = The Effect of NaFeeDTA fortificant addition to soymilk on iron plasma concentration of male sprague dawley rats (rattus norvegicus l)

Rohmad Joni Pranoto, author

Abstrak

Telah dilakukan penelitian yang bertujuan untuk mengetahui pengaruh pemberian fortifikan NaFeEDTA dalam susu kedelai terhadap kadar zat besi plasma darah tikus (Rattus norvegicus L.) jantan galur Sprague-Dawley. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL). Sebanyak 25 ekor tikus putih jantan yang dibagi ke dalam 5 kelompok perlakuan, yaitu KK 1 yang diberi pakan dan minum standar; KK 2 yang diberi pakan minum standar dan susu kedelai tanpa fortifikan; dan KP 1, 2, dan 3 yang diberi pakan minum standar dan susu kedelai dengan fortifikan NaFeEDTA berturut-turut dosis 1,35 mg Fe/ kgBB, 2,7 mg Fe/ kg BB, dan 5,4 mg Fe/ kgBB selama 21 hari berturut-turut. Pengambilan darah dilakukan pada hari ke-0 dan setelah perlakuan pada hari ke-21. Darah dipreparasi menggunakan destruksi basah lalu ditentukan kadar zat besinya dengan AAS (Atomic Absorption Spectrophotometer). Hasil uji ANAVA satu arah dan uji LSD (P < 0,05) menunjukkan perbedaan nyata pemberian fortifikan NaFeEDTA dalam susu kedelai terhadap kadar zat besi antar kelompok perlakuan. Peningkatan kadar zat besi tertinggi terjadi pada KP 3 di hari ke-21 yaitu 31,74% terhadap KK 1; dan 23,52% terhadap KK 2.
<hr>The effect of NaFeEDTA fortificant addition to soymilk on plasma iron concentration of male Sprague-Dawley rats (Rattus norvegicus L.) had been studied. By using Complete Random Design (CRD), twenty five rats were divided into five groups. Normal control group (KK 1) which was administered with standard feeding and drinking only. Treatment control group (KK 2) which was administered with extra soymilk non fortificant, and three treatment groups which were administered with extra soymilk added with NaFeEDTA fortificant 1.35 mg Fe/kgbw (KP 1); 2.7 mg Fe/kgbw (KP 2); and 5.4 mg Fe/kgbw (KP 3). All of the five groups were treated for 21 days consecutively. The plasma iron concentration was measured by Atomic Absorption Spectrophotometer (AAS). One way ANOVA test and post hoc LSD test (P < 0.05) showed significant effect of NaFeEDTA fortificant addition to soymilk on plasma iron concentration in all treatment groups. The highest increase of plasma iron concentration was detected on KP 3 at t21 which is 31.74% to KK 1; and 23.52% to KK 2.