

EFFECT OF DIETARY SUPPLEMENTATION WITH RETINYL PALMITATE IN QUAILS (*Coturnix coturnix japonica*) ON THE RETINOL EGG YOLK.

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Vitamin A deficiency is a serious problem of public health in developing countries, and it causes death and blindness among children in these countries. Fortification of food could be an important source of vitamins to control deficiency. This work evaluated the effect of the supplementation with vitamin A in quails (*Coturnix coturnix japonica*) on egg yolk retinol levels. A total of 60 quails was divided randomly in 5 groups in accordance with the supplementation level, 0 (T1), 2000UI (T2), 4000UI (T3), 8000UI (T4) e 16000UI (T5), respectively. The supplementation occurred weekly during 30 days. In elapsing of this period the eggs had been collected and the used method to dose retinol was the High Performance Liquid Chromatography (HPLC). Statistical analysis using the one-way ANOVA, and Tukey's test was used to compare treatment means. The results had shown a progressive and linear increase in the incorporation of retinol into egg yolk when it had supplementation with vitamin A; the percentage of increment reached 58% com 2000UI, 99% com 4000UI, 194% com 8000UI e 365% with 16000 UI of retinol acetate. The nutritional value of eggs, related to vitamin A, can be improved by dietary manipulation of quails.

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