



Response of Turkey Poults to EMCELLE ED₃-Liquid Supplementation

Objective of Study

Measure the effects of vitamin E and vitamin D water supplementation (**EMCELLE®-ED₃ Liquid**) on serum and liver status in newly-hatched poults. Each value represents the mean of four poults per pen with five pens per treatment group. Serum and liver samples were taken initially and on days 14 and 28. Plasma and liver alpha-tocopherol was determined on days 0, 14, and 28 and serum vitamin D levels were determined on days 0, 14 and 28. **EMCELLE®-ED₃ Liquid** was administered in drinking water at 350 I.U. vitamin E and 20,700 I.U. vitamin D per gallon drinking water during the four-week supplementation period.

Results/Discussion

Poult serum α -tocopherol status is presented in Figure 1. Serum vitamin E status was increased by 717% and 123% for days 14 and 28, respectively. Serum vitamin D status D status was increased by 51% and 22% for days 14 and 28, respectively (Figure 2). Liver vitamin E status was 123 % higher at 14 days and 215% higher on day 28 (Figure 3).

EMCELLE®-ED₃ Liquid contains micellized d-alpha-tocopherol and cholecalciferol (vitamin D₃). The product contains the same form of vitamin E found in the yolk sac. Previous research has shown that poults do not efficiently utilize vitamin E-acetate found in complete feeds. With EMCELLE, de-esterification of the vitamin E and micellization prior to absorption is not needed.

Conclusion

These results are similar to previous experiments showing the effectiveness of EMCELLE on enhancing vitamin E and vitamin D status in young poults.

Figure 1. Serum vitamin E in turkey poults administered EMCELLE ED₃ Liquid in drinking water

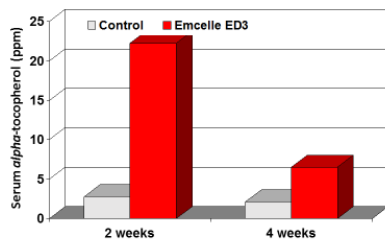


Figure 2. Serum vitamin D in turkey poults administered EMCELLE ED₃ Liquid in drinking water

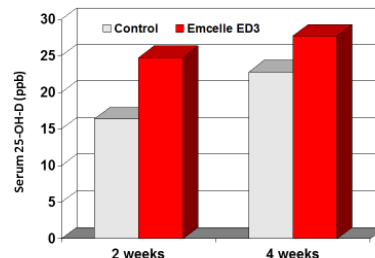


Figure 3. Liver vitamin E in turkey poults administered EMCELLE ED₃ Liquid in drinking water

