



# EFFECTIVENESS OF EMCELLE® TOCOPHEROL (*d-alpha*-tocopherol) IN YOUNG POULTS (Field Demonstration)

## Introduction

University studies have shown the effectiveness of **EMCELLE® TOCOPHEROL** in poults and chicks when administered at levels up to 200 IU per liter drinking water. From those results, 50 to 100 I.U. vitamin E per liter (200 to 400 I.U. per gallon) drinking water is recommended for chicks and poults from day 3 through day 10. Due to high levels of vitamin E in liver and yolk sac that is available to the poult, the need to supplement vitamin E during the first 3 days after placement is not as great.

## Field Study

To measure the effectiveness of EMCELLE TOCOPHEROL under field conditions, a demonstration was conducted by Dr. Terry Olson, Moroni Feed Company, Moroni, Utah. Approximately 15,000 turkey poults were placed in each of two houses. One house contained toms and the other house contained hens. The starter feed contained 30,000 I.U. vitamin E per ton as synthetic vitamin E acetate. EMCELLE supplementation was from day 3 through day 10 at

the rate of 100 I.U. per liter. On day 10, serum and hearts were obtained from twelve poults from each house and analyzed for alpha-tocopherol.

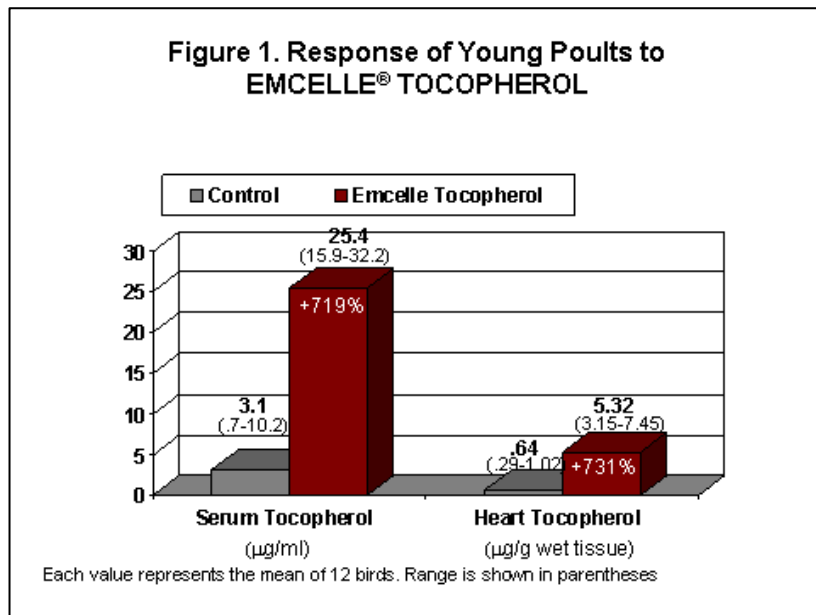


Figure 1 shows the results obtained from the demonstration. Mean serum tocopherol levels in control and supplemented poults were 3.1 and 25.4 µg/ml, respectively (P < 0.01). Mean heart tocopherol levels were .64 and 5.32 µg/g, respectively (P < 0.01). This showed that the administration of 100 I.U. vitamin E per liter drinking water with EMCELLE was a very effective means of maintaining vitamin E status during the early life of poults.

## Implications

Water administration of micellized non-esterified natural vitamin E is the most

efficacious method to maintain vitamin E status in poults after hatch since high vitamin E acetate levels in the feed are not efficiently utilized by the young poult.

This demonstration showed the effectiveness of **EMCELLE® TOCOPHEROL** to dramatically enhance vitamin E status, especially in heart muscle of young poults. EMCELLE should be included in drinking water at 50 to 100 I.U. per liter drinking water from days 3-10, or whenever a vitamin E deficiency is expected.

## TO ORDER

Telephone (800) 747-4538 or (817) 590-2907; or mail original or confirming orders and inquiries to STUART PRODUCTS, INC., 112 Bedford Road, Bedford, Texas 76022. E-mail: [RobStuart@Stuartproducts.net](mailto:RobStuart@Stuartproducts.net)