

ABSTRACT

EFFECT OF LT4 ON MILK PRODUCTION, MILK COMPONENTS, SERUM MINERAL STATUS, AND SERUM HORMONE STATUS IN LACTATING DAIRY COWS

Twenty-eight Holstein cows and 31 Jersey cows were blocked by parity, days in milk, and production level, and were assigned to either treatment or control to determine the effect of trace mineral source on milk production, milk fat, milk protein, somatic cell count, blood serum mineral, and hormone levels. Treatments were 1) all trace minerals supplied by sulfates or 2) trace minerals supplied by LT4 trace mineral supplement and sulfates. Cows fed LT4 produced 7.28 pounds more milk ($P < 0.001$). Treatment also resulted in increased pounds of milk fat and protein as well as an increase in the percent of milk protein ($P < 0.05$). Supplementation with LT4 did not influence blood serum trace mineral levels ($P < 0.05$). Cows fed LT4 showed an increase ($P < 0.01$) in blood serum cortisol levels, but the other hormones were not affected.

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