Is Monitoring for Subclinical Ketosis in Dairy Herds Cost Effective?

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Abstract

The objective of this study was to estimate the profitability of a monitoring program for subclinical ketosis in dairy herds. Ketosis causes economic losses due to decreased milk production, impaired fertility and increased risk of displaced abomasum. On a herd basis, subclinical ketosis is substantially more costly than clinical ketosis: the estimated average subclinical ketosis risk accounts for $ 31 per cow, per lactation (lactational incidence risk of 40% x $ 78 per case), whereas the clinical ketosis risk accounts for approximately $ 7 (lactational incidence risk of 5% x $ 145 per case). Therefore, more can be gained by monitoring cows for subclinical ketosis in addition to clinical ketosis.

More than 90% of subclinical ketosis cases occur in the first and second month after calving. During this period, an average 40% of all cows are affected by subclinical ketosis one or more times, with highest prevalence in the first and second week after calving. A monitoring program that tested each cow for subclinical ketosis in the first and second week post-calving would identify nearly 90% of cases.

A low-cost, cow-side milk ketone test that is highly sensitive and specific has recently become available. A program that tested each cow for subclinical ketosis in the first and second week post-calving, and treated positive cows to prevent losses, could have a cost: benefit ratio of 1 to 3. Under these conditions, a monitoring program for ketosis would be profitable.

Corticosteroid Treatment of Healthy Early-lactation Dairy Cows

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Abstract

Effects of isoflupredone acetate and dexamethasone were studied in 68 healthy Holstein dairy cows. Cows in a single herd were screened for health status on day 4 or 5 after calving, then randomly assigned to receive 1)20 mg isoflupredone acetate on day 0: 2) 20 mg isoflupredone acetate on day 0 and day 1: 3)20 mg dexamethasone on day 0: or 4)10 cc normal saline on day 0.

Blood and urine samples were collected twice daily from each cow for 5 days. Urine pH was determined and the remainder of the sample frozen for later analyses. Serum was separated from clots by centrifugation and frozen for later analyses. All chemical analyses were conducted by PalmLab of Madison, WI. Serum and urine concentrations of Na, K, Cl, Mg, PO_4, Ca, and creatinine, plus serum glucose, were measured.

Two-way ANOVA (treatment, time) with repeated measures on one factor (time) and an autoregressive co-