Animate®

Technical Bulletin

Information from Phibro Technical Services

Summary of Data Demonstrating the Benefits of Feeding a Fully Acidogenic Prepartum Diet on Cow Health and Milk Production

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Summary

- Benefits of the Animate® Program, a fully acidogenic, high calcium prepartum diet, were demonstrated using over 6,000 cows from 39 herds across the US. Transition cow diseases and startup milk production were evaluated using a before and after comparison.
- When Animate was fed according to the recommended Animate Program during the prepartum period, culling rates and mastitis were significantly reduced ($P<0.01$) and there was a tendency for fewer hospital pen cows ($P = 0.10$).
- Additionally, start-up milk production was increased by 2.2 lbs. per cow per day ($P = 0.01$).

Introduction

The Animate Challenge (AC) was designed to demonstrate to producers, veterinarians and consultants the production and health benefits of the Phibro Animate Program. The Animate Program consists of three key components:

- Animate is fed as the sole source of additional anions in the prepartum diet.
- Animate is fed under a fully acidogenic prepartum strategy that achieves a urine pH range from 5.5 to 6.0.
- The minimum amount of dietary calcium consumed by the cow is 180 grams of calcium and not less than 1.5% DM of dietary calcium.

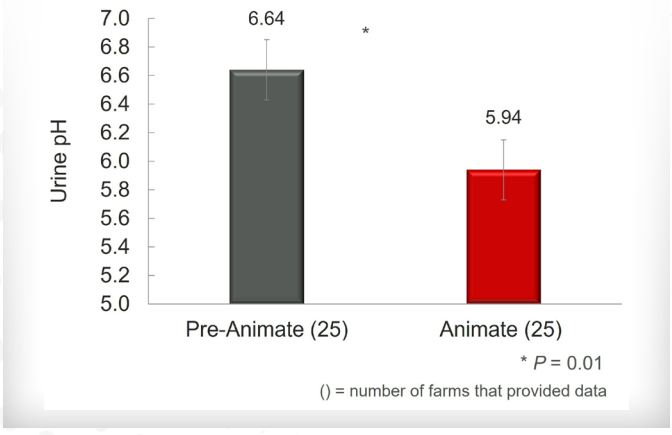
Fresh cow production and health records were collected from 39 herds representing 6,499 cows from across the major dairy producing regions in the US. Herds were enrolled in all months of the year, and the basic criteria for enrollment included being able to feed the Animate Program, track and report at least three health metrics and milk production, and provide the same information prior to initiating the AC. Those data were then compared to health and production results from the previous prefresh programs which varied from herds using either no DCAD (4.7%), anionic salt mixes (32.4%), or commercial DCAD products (62.9%).

Results

Urine pH

One of the key reasons for the Animate Program's success is its ability to effectively stimulate the calcium homeostatic mechanism in dairy cows to prevent subclinical hypocalcemia. Urine pH monitoring is a method for evaluating this effect, and maintaining urine pH from 5.5 to 6.0 has been shown to be the optimal range for effective calcium homeostasis around the time of calving for improving start up milk and reducing calcium related health disorders. During the Animate Program period, the urine pH of cows averaged 5.94 compared to a urine pH average of 6.64 for cows prior to starting the Animate Program (Figure 1).

Figure 1. Urine pH during the Animate Challenge



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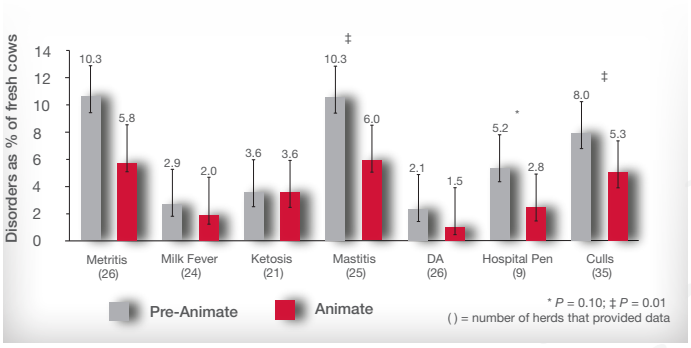
Health Events

All of the reported transition cow health disorders were numerically reduced during the Animate Program period (Figure 2). Significant reductions were observed for post-partum mastitis (10.3 to 6.0%; *P*=0.01), number of cows in the hospital pens on a daily basis (5.2 to 2.8%; P = 0.10) and for the number of cows culled (8% to 5.3%; *P*=0.01) (Figure 2).

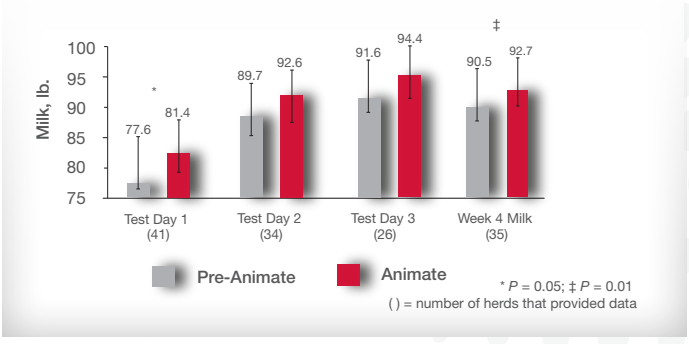
Figure 2. Incidence of transition cow health disorders during the Animate Challenge



Milk Production

Feeding the Animate Program had a positive influence on start up milk, resulting in an average improvement of 3.8 lb more first test day milk (*P* = 0.05) and 2.2 lb more Week 4 milk (*P* = 0.01) compared to the previous prepartum nutritional strategy (Figure 3).

Figure 3. Startup milk production during the Animate Challenge



Conclusions

The aim of the Animate Challenge was to demonstrate the effectiveness of the Animate Program (Animate as the sole source of anions, fed under a fully acidogenic strategy and delivering a minimum of 180 grams of calcium and not less than 1.5% of dietary DM) on improving transition cow health and production. As demonstrated by the AC results, the Animate Program resulted in greater milk production and fewer metabolic diseases during the early postpartum period.

To learn more about Animate, talk with an expert at 1-888-403-0074.

This information has been prepared for industry technical professionals.

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