**NAVAN VETERINARY SERVICES – FEBRUARY 2018 NEWSLETTER**

The transition period in a cows’ life (approx. 2-3 weeks pre-calving to 2-3 weeks fresh) is a critical time where it can be a “make or break” situation that can affect her entire lactation. Diseases like milk fever, ketosis, retained placenta (RP), metritis, mastitis and displaced abomasum (DA’s) are highly associated with problems that occur during this transition period.

A recent article released by Boehringer Ingelheim (producers of Bovikalc) summarized a few studies that looked at the association between fresh cows with slightly lower than normal serum calcium levels (subclinical hypocalcemia SCHC) and some of these fresh cow diseases.

In one study 764 cows from six dairies were enrolled over two months time. Blood samples were taken at 24 and 48 hours fresh to measure calcium levels. Cows were followed for 60 DIM to monitor some of the diseases mentioned, RP’s, ketosis, DA, metritis and mastitis. Of the older cows, 6% were treated for clinical milk fevers. However, 62% actually had SCHC. When all the information was summarized, it showed that cows with SCHC were 3.7, 5.5, 3.4 and 4.3 times more likely to get a DA, ketosis, metritis and RP, respectively, than cows that had normal calcium levels.

In another study, the authors wanted to see if there was an association between SCHC in the first 3 days of lactation and reproductive performance. In this study on 97 cows in 2 robot herds, 80% of cows had SCHC on at least one serum sample and 34% of the cows were classified as chronic SCHC as they had lower than normal calcium levels on all 3 days. They then looked at first service conception rates and found that more cows were pregnant at first service that had normal blood calcium than chronic SCHC cows (61% vs 31%), and no difference between the “onetime” SCHC cows and normal calcium cows.

The authors of the info bulletin are quick to comment that more studies need to be done to rule out other factors that could influence the results.

The calcium bolus, either Bovikalc or Transition Boluses are a good source of quick releasing calcium salt (calcium chloride) and a slower releasing calcium sulfate. The idea is to try and maintain normal serum calcium levels around calving and still allow the cow to mobilize her own bodies calcium stores.

Cases of full blown milk fever still require calcium to be given I.V., SQ, and after phosphorus treatment. It appears however, that there are a lot (62% and 80% in the 2 studies) of cows that are sub clinically low in calcium. Preventing this by giving a calcium bolus at time of calving and 12-24 hours later may help these cows get off to a good start, avoiding or reducing the fresh cow diseases that we see.