



CEDAR GROVE VETERINARY SERVICE NEWSLETTER



JULY 2016

LET'S TALK ABOUT TWINS

As veterinarians, we hear it all the time "Doc, why do I have so many twins?! It has to be because of... (insert reason here)." For those of you that feel like twins have only increased over the past few years, you are not wrong. In 1983, twinning occurred at about a rate of 1.5%. In 2003, the rate of twinning had increased to nearly 5%. Economically, lost revenue due to twinning was estimated to be \$55 million per year.

As veterinarians, we also hear a lot of reasons why farmers think they have so many twins. The research that has been done so far looking into twinning in both beef and dairy cows have shown only three concrete contributors to the increased rate.

The first reason has to do with the levels of progesterone at the time of ovulation. It has been demonstrated that low progesterone, a hormone produced by the corpus luteum (CL), during growth of an ovulatory follicle increases the incidence of double ovulation. Double ovulation results in two follicles being released which can lead to the development of twins. Low progesterone with follicular development is most often observed during the first

ovulation/heat following calving. This also occurs when anovular cows (cows not cycling) are submitted into the Ovsynch protocol and bred after the first GnRH shot. This is one of the reasons why Ovsynch is often viewed by farmers as a risk factor for twinning.

The second reason that increased twinning can occur is due to cows with cystic ovaries. The odds of double ovulation were 3.3 times greater for cows that were identified with ovarian cysts and bred to a timed AI protocol after identification of the cyst. The increased risk of twinning associated with cystic ovaries is most likely due to the lack of a CL and low progesterone.

The last risk factor for twinning is increased milk production. The increased risk arises from the level of milk production the cow is at during the 14 days prior to showing heat. Those cows producing greater than 88 lbs prior to breeding are far more likely to double ovulate and have twins than lower producing cattle.

The best way to identify cows that have twins is through the use of ultrasound during pregnancy diagnosis. These twins can be most accurately between 40-55 days.

DO YOU KNOW YOUR VACCINES?

Inforce 3

Use: For the vaccination of healthy cattle and calves, including pregnant cows, for the prevention of respiratory disease caused by BRSV, and as an aid in preventing respiratory disease caused by IBR and PI3

Dose: 2 mL Intranasal

Dosing: Calves vaccinated before the age of 6 months should be revaccinated after 6 months of age to avoid possible maternal antibody interference with immunization. Annual revaccination with a single dose is recommended.

Special Notes:

For dairy herds it can be used in baby calves, on arrival, at weaning, before moving to group pens, or with cows and heifers pre-freshening. For use in beef herds in calves at branding, preconditioning, weaning, pre-shipment, or on arrival at feedlot

Identification of twins is important for both management of the cows at the time of calving and also for observation of pregnancy loss since cows with twins do experience a higher level of pregnancy loss than their herdmates.

So what are our options to manage twins in the herd?

Pregnancy termination is always an option. Termination can be done early after twin are determined by using Lutalyse/Estrumate. It is a dramatic way to reduce twinning rates and does come at a price. Terminating twins is associated with economic costs due to pregnancy loss and the impacts on high producing cows. The question often arises if termination of one of the twins is possible. While it is possible, the risk of losing both pregnancies is fairly high, making it a high risk venture.

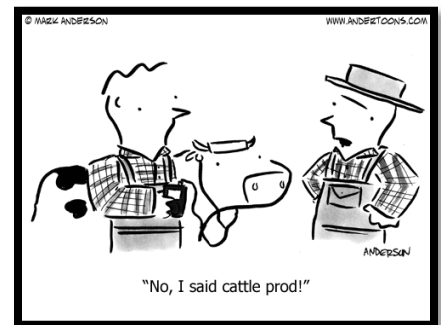
The more practical approach to prevent twin pregnancies is to limit the rate of double ovulation prior to breeding. The goal would be to always have a CL present during follicle development prior to

breeding. Therefore, producers should avoid breeding cows off of the first heat observed after calving. Additionally, cows placed on an Ovsynch protocol should only be bred after completion of the protocol or Double Ovsynch should be utilized to further reduce the risk of double ovulation. Finally, cystic cows should be re-checked prior to breeding to not only make sure the cyst is gone, but also to make sure that there is normal cyclicity prior to breeding.

With all of this considered, twinning is still something that will occur whether you average 60lbs of milk or 100lbs of milk. So, most producers find the best way to handle twins is to simply manage the cow through the transition period. This plan depends on accurate identification of twins and implementing a plan to handle these high risk cattle. Energy demands for cows carrying twins can be 50-70% greater than other cattle in the herd. But cows carrying twins do not show an equal increase in dry matter intake

in the dry period. Therefore, they are not consuming more feed to match their energy demands. This increases the risks at calving for fresh cow diseases such as DA, ketosis, metritis, milk fever, and retained placenta. Farmers should work with their nutritionists and veterinarians to manage these cows appropriately to avoid problems.

Twinning in dairy cattle can be a headache, but with solid management of both breeding and the transition period, it does not have to be a nightmare. Working with your veterinarian and nutritionist are the best ways to develop protocols to handle these issues.



Antibiotics in Food Animals: An Update

Keep your eyes set on California

In the last Newsletter, we updated everyone on the impacts of the new VFD rules that will go into effect in 2017. For the foreseeable future, the only change in antibiotic regulation for farmers in Wisconsin should be the VFD rules. However, farmers should keep a close eye on the situation going on in California. Two new laws were signed in California that banned the over-the-counter sale of all antibiotics that have human medical importance. This means running to Fleet Farm for a bottle of tetracycline or penicillin will be a thing of the past for farmers in that state. Antibiotics may only be used under veterinary guidance to control or treat existing disease when the veterinarian has determined that the animal is at increased risk of infection. These regulations in California match many of the bans already in place in the European Union. What we need to take away from these new developments is that all of us—farmers, veterinarians, nutritionists—need to work together to adhere to the new VFD guidelines and prepare for a potential future where antibiotics are further regulated than they are today.