

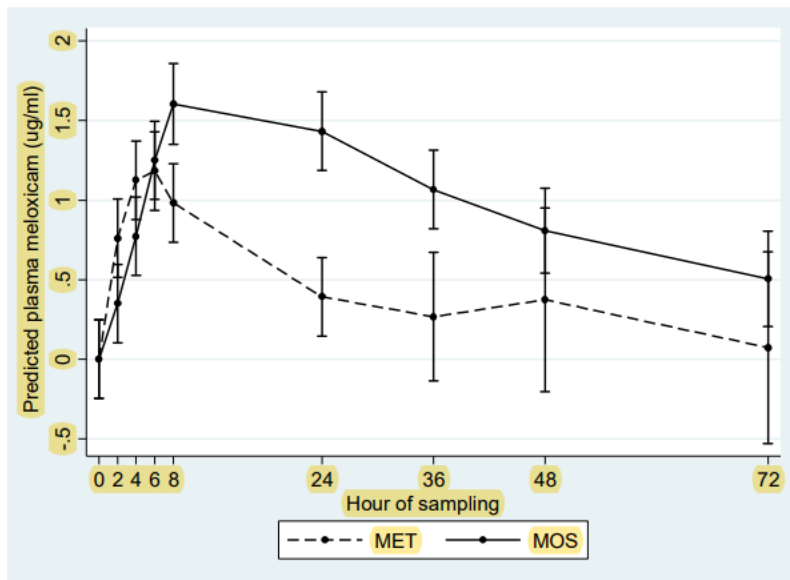
## MAY 2023 DAIRY NEWSLETTER

### The Many Benefits (including increased milk production!) of Oral Meloxicam

Some of you might already be using oral meloxicam for calves, but it can have great benefits lactating dairy cows as well. Let's first review oral meloxicam as compared to injectable meloxicam (Metacam) first.

Oral meloxicam has a concentration of 15 mg/ml as compared to injectable Metacam's concentration of 20 mg/ml. Oral meloxicam is administered at more than double the dose (1.0 mg/kg or 10 ml/150 kg) as compared to injectable Metacam (0.5 mg/kg or 3.75 ml/150 kg). It also lasts twice as long as Metacam. So, you get "twice the duration for half the cost".

The graph below demonstrates how long it takes oral meloxicam (MOS) to reach peak plasma concentration versus injectable Metacam (MET). As you can see, the peak concentration of oral meloxicam is much greater than the injectable Metacam. The duration of action of MOS is also much longer than Metacam. I would say that if you're needing to pick a drug to get on board sooner rather than later (let's say for a high fever), Flunazine/Banamine/Vetonixin or Ketoprofen/Anafen would likely be the way to go. For most other cases, oral meloxicam would be a good choice to use based on price and the fact it lasts about twice as long. This would also save you money in case the cow would have needed a second dose of Metacam (as MOS lasts twice as long).



A clinical study in southwestern Ontario demonstrated **2.3 kg more milk, less subclinical mastitis over the first three tests and 50% reduced culling in the first 60 days** in cows given oral meloxicam at calving compared to those that did not receive it.

In addition to the above-mentioned benefits in lactating cows, oral meloxicam has also shown great benefit for use in scouring calves. A 2010 study by C.G. Todd et al found that scouring calves receiving oral meloxicam started eating solid feed sooner, were weaned earlier and had a higher rate of gain relative to those that did not receive it.

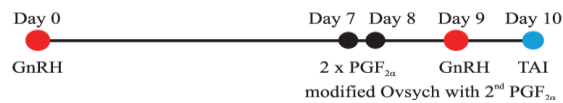
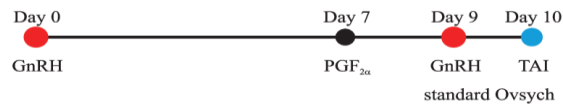
It must be noted that oral meloxicam is not labeled for use in lactating cows. Vets, however, have the discretion of using drugs such as this off label. CgFarad (the governing body that determines which withholdings need to be met) has recommended a 96-hour milk withhold when used according to label instructions. This is the same milk withhold as injectable meloxicam (Metacam). The meat withhold, however, is 35 days as compared to Metacam, which is 20 days.

We are all caretakers of the animals in our care and want to do the best for them, while producing the most milk we can without compromising their welfare. There are several places in the 2023 Dairy Code of Practice that advocates for best practices in pain management (dehorning, surgery, sick, tough calvings and mastitis to name a few).

We are not suggesting you have to use oral meloxicam in fresh cows just for the increase in milk, but the other benefits listed above strongly suggests that it improves their health as well, and keeps them in the herd longer.

### REPRODUCTIVE PROTOCOL REFRESHER

- Cows - Use the second PGF (Bioestrovvet/Estrumate/Lutalyse) shot!
  - Research has shown that giving a second PGF shot in either a Double Ovsynch or Ovsynch program can increase pregnancy per artificial insemination by almost 10% for multiparous (2<sup>nd</sup> lactation and older) cows. There is no benefit with using the second PGF shot to 1<sup>st</sup> lactation cows.



- Heifers – The current best protocol to synch heifers is the 5-day CIDR Synch
  - This program also utilizes a second PGF shot. The main downfall to this program is you're giving shots on four different days. A positive about it is that every injection can be done the same time of day (am).

