MSc Position Available - January or May 2017
Beef Cattle Welfare

The most common / conventional way we wean beef cattle in Canada is by taking the calves away from their mother, and putting them on a truck headed for an auction market. This actually worsens weaning stress by compounding it with the stress of transportation, and by comingling stressed calves from different farms together (Ribble et al, 1995). Given the compounding stressors the high prevalence of bovine respiratory disease complex (“shipping fever”) among newly weaned calves comes as no surprise. Our conventional way of mitigating the risk of disease among newly weaned calves has been metaphylaxis (or the mass medication of those calves) with antibiotics.

Weaning is widely recognized as the most stressful time in the life of a beef animal (BCRC, 2016) and our main way of dealing with it is under scrutiny due to increasing concern about the overuse of antibiotics in livestock production. Furthermore, precisely how we impose weaning does have a major influence on how the animals respond, and surveys show that relationship between mothers and their young is of concern to our consumers (Ventura et al, 2015). These points point to several reasons why we should explore alternative ways to deal with, and reduce, weaning stress.

Two-stage weaning is considered a “low-stress” alternative to conventional weaning. Calves wear a nose-flap for a few days (stage 1) prior to the cows and calves being separated (stage 2). Calves are effectively weaned while still with the cows, and the behavioural response of both the cows and calves is significantly reduced (less calling and pacing, and more eating) (Haley et al, 2003).

Amazingly, two-stage weaning has simply been used “as is”. No research has gone into refining other aspects of the method to try and maximize the benefits. Those who use it commonly manage (e.g., feed, and vaccinate) their calves as if they were being weaned conventionally. We do not know how good this method could be. Secondly, we do not know whether the reduced behavioural signs of weaning stress actually translate into fewer health problems for those calves in the feedlot.

Please email dhaley@uoguelph.ca if you’re interested in this position!