

RETHINKING LAMENESS

I would like to congratulate Vic Daniel on very fine, thought provoking and timely paper.

In the 1980's Karen Mortensen a Danish research worker introduced the concept of lameness being a "Multifactorial Problem". That I suggest is the theme of Vic's paper. He reminds us that lameness does not have just one cause but is caused by a number of different interrelated factors. He points out, oh, so very rightly, that the contemporary move to systematically record herd foot lesions will eventually lead to solutions to our problems. He mentions stress as an important factor. It is wonderful that he is taking the term seriously. I know learned colleagues who, at the mention of the word, smile, nod their head and pay lip service to the idea of dumb cow having feelings. Cows do have feelings, instincts and even emotions but they just do not equate to human comparisons. Reducing stress in the dairy herd is what it will have to come to in the final resort.

The use of the cowside data recorder gained attention when it was adopted by the Swedish team led by Christer Bergsten. They are trying to use the data to produce a "Bull Lameness Index". The idea is that producers would one day be able to select bulls that throw calves that are less susceptible to lameness. In North America I believe that there may be too many vested interests for this to become popular unless commercial dairy producers get right behind the move. Alberto Brizzi an Italian veterinarian who runs an exclusively lameness oriented practice told me, many years ago, that we will never master lameness until we can manage the genetics. Another potential value of lesion recording is that correlations will be found between the prevalence of lesions and "risk factors" such as may exist both in the cows immediate environment and the way she is managed. This is not a new idea either, researchers at the University of Bristol in the UK have been testing this for years.

I sympathize entirely with Vic's gallant effort for banging the drum to draw dairy producers attention to the economic losses caused by lameness. Esselmont and Spincer wrote a report published in 1993 based on their DAISY herd records that came up with much of the same information. Twenty years on and producers still do not believe.

Early in his paper Vic mentions "sole shedding". I just wonder how many of his readers will know what he is talking about. In the very early 1950s, as a very young veterinarian in England, I recall attending dairy cows that spent their entire lives on lush pasture. A few milkers even went out to the field in smocks, with a three leg stool and a bucket and milked the animals where they stood. I was treating dozens of lame cows in those days and it was common to see layers of horn flaking away to expose white powdery dust beneath (pith). I thought nothing of it at the time but memories came flooding back when Ladd Siebert spoke to me on the matter. I have mulled over his theories since and from the hodge podge of papers I have read I recall

research on the tubules of the sole have been demonstrated to absorb moisture from the outside by means of capillary attraction. This process, it is postulated, affects the moisture content of the sole and hence its flexibility and hence the possibility of bruising of the corium which undoubtedly has susceptibility to precipitating laminitis. What IF... hoof trimmers were able to spray or paint the soles with a rapid drying varnish that would permeate the tubules by capillary attraction. In truth academic researchers shun such mundane ideas. We know a great deal about the molecular biology of the chemical cascade leading to laminitis but there is so much simple stuff we do not know. Such as? At what age does a heifer's claw cease to increase in volume? Is there a correlation between the age at which a heifer calves for the first time and her longevity?

Thank you, Vic, it was a treat to know that out there is someone who can think outside the box.