

# CALVING EASE

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## Why do Bad Things (Sick, Dead Calves) Happen to Good People (Us)?

- We are doing “everything” right yet they still get sick and some die.
- Why do these bad things happen to good people like us?
- Consider (1) Variation in raw product, (2) Environmental factors, (3) Complexity of calf biology, and (4) Protocol compliance.

If you raise enough calves over a long enough period of time some of them will get sick. And, some of those calves will die. Just like death and taxes.

Why, if we are doing “everything” right, do we get these negative outcomes? Are there things we can do to lower the rate of “bad” things?

### Variation in raw product

It is easy to say that, in general, all heifer calves are born with the capacity to survive and mature into cows. However, that is only the overall picture that applies to the species. At the specific calf-by-calf level we all know that every calf is different. Their genetic makeup varies. For example, their genetically-determined ability to absorb antibodies from colostrum varies from calf to calf. Not much we can do to change this factor.

And, developmentally as they mature as a fetus more variation is introduced. Our “raw” product is not uniform. For example, the dam may be exposed to one or more infectious pathogens during gestation. One of the worst of these is the BVD virus. Depending on the stage of gestation when the exposure occurs the fetus can suffer neurological damage or even develop as a BVD-persistently infected calf. We can check our calves for this developmental factor.

### Environmental factors

One of the first factors that calves experience is being born. Calves having an unassisted birth have much higher chances of “normal” growth when compared to calves experiencing a hard delivery. For a resource on newborn care for assisted delivery calves see [calffacts.com](http://calffacts.com) “Assisted birth calf care checklist.”

A second environmental factor is the newborn calf's experience during the first few hours of life. Dr. Sheila McGuirk captured the idea of a poor environment when she came up with the term, "Manure Meals." Even when we use best management practices to reduce contact between newborn calves and adult cow manure it is not practical to achieve zero levels of exposure. Nevertheless, less exposure is always better than more.

A third environmental factor deals with what goes into the calf for her first meal. Zealous adherence to colostrum management protocols (using the 5 Q's – Quickly, Quantity, Quality, sQueaky clean, Quantify immunity) delivers strong immunity without excessive pathogen exposure. The opportunities for bacterial contamination of maternal colostrum abound on dairy farms. Only through consistent quality control (sampling, culturing, training, monitoring immunity) can we smooth out the bumps in this environmental factor.

### **Complexity of calf biology**

When you think of about it, a calf is a biological wonder. An almost unbelievably complex collection of biological systems. We have made huge strides every decade in building our understanding of how these systems work both separately and together (digestive, circulatory, nervous, respiratory, muscular, hormonal, urogenital, skeletal, and immunological). However, we still have big gaps in our knowledge. Those gaps require us to make informed guesses when we try to define best management practices for calf care. Thus, science-based knowledge only takes us so far. We have to fall back on "stockmanship" or "animal husbandry" when caring for calves. It is possible, however, to improve our treatment of sick calves through good practices. See [calffacts.com](http://calffacts.com) for guidelines for doing this, "Improving treatment success for sick calves."

### **Protocol compliance**

One challenge is to set up protocols – written or not. It is another matter to get everyone involved in calf care trained so that the right thing is done every time at the correct time. Nearly every time when I get involved in efforts to improve the profitability of a calf enterprise we find significant differences between actual work procedures and those defined in protocols. Thus, farms often have an illusion that the "right" things are being done when, in fact, this is true only part of the time. See [calffacts.com](http://calffacts.com) for a checklist for monitoring compliance to protocols, "Monitoring compliance with protocols."

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