

New life, new challenges

Semi-finalist

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Image location: On a commercial dairy farm in
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Image Description

This photo represents the vulnerability of the bovine calf at birth. This calf was born moments ago, and its dam stands protectively in the background, even though she has yet to provide immune protection to her calf. Humans are born with immune protection from their mom in the form of maternal antibodies, but the bovine calf, in contrast, is born a “blank slate”. They must drink, and absorb, antibody-rich colostrum to obtain the same protection. The calf has yet to stand, has barely begun to exist, and yet the clock is already ticking. The calf only has 12-24 hours to absorb those colostrum antibodies or it will be unprotected for the first several months of its life and vulnerable to disease. Hopefully, with our research on colostrum absorption mechanisms, we can better understand these vulnerable moments, and improve the chances of survival for newborn calves.

Image Creation

This photo was taken on a smartphone, minutes after birth of the calf.