



Get to know the David of the livestock pharmaceutical world.

IN THE BEGINNING

ImmuCell was established in 1982 initially focused on human health applications for their purified colostrum antibodies. With roots in farming and agriculture, the Portland, Maine based research team made the leap to adapting this technology to solve one of the most common problems in dairy and beef calves – scours. Focused on diarrhea for the last 28 years may not seem glamorous, but having a loyal customer base with such high-energy testimonials makes the poop business pretty rewarding, actually.

FIRST DEFENSE®

ImmuCell is a David amongst pharmaceutical Goliaths. It's unusual that a company as small as ImmuCell (under 50 employees) would go through the effort and expense to achieve USDA approval, but in August 1991 they did just that with their flagship product FIRST DEFENSE. Regulated by the same agency that regulates vaccines, the USDA Center for Veterinary Biologics, FIRST DEFENSE isn't actually a vaccine at all; it's the result of a vaccine, specifically an antibody. This eliminates vaccination stress in the animal and variability in response rate. Developed through hyper-immunized colostrum antibodies, the legacy product has label claims for reduced mortality and morbidity associated with K99 *E. coli* and coronavirus scours in newborn calves. One dose at birth provides immediate immunity against these two common scour pathogens.



This product has stood the test of time and is continuing to gain market share even 26 years later.

That's it...one product is all ImmuCell manufactures? Well that's pretty much been the case, until now. In November of

2017 ImmuCell received USDA

approval for FIRST DEFENSE TRI-SHIELD. TRI-SHIELD adds the *E. coli* and coronavirus antibodies of FIRST DEFENSE with a concentrated dose of rotavirus antibodies making FIRST DEFENSE TRI-SHIELD the only veterinary biologic equally protecting every calf against all three scour pathogens.



FIRST DEFENSE® TRI-SHIELD™

It's kind of a big deal because with protection against all three scour pathogens, TRI-SHIELD allows producers to go beyond vaccination to protect calves. Preventing scours at the calf-level insures the investment is only made in live-born valued calves, reduces the need to chase down cows for boosters or second shots required for primary vaccination, eliminates any potential for adverse reactions, and frees up space in the cow's vaccination schedule for vaccines critical to her health and longevity.



Kind of a Big Deal!

...AND BEYOND

Scours is one of the two most frustrating problems dairymen face, the other is Mastitis. In October of 2017 ImmuCell completed construction on a new manufacturing facility. This will be an FDA registered facility designed to manufacture purified Nisin. Purifying antibodies and purifying Nisin – you could say the ImmuCell crew are specialists in purity.



Shiny new things!



ImmuCell's Purified Nisin Plant being built to FDA standards!

ImmuCell's purified Nisin, with FDA approval anticipated the end of 2019, will be the first of its kind intramammary treatment for subclinical mastitis without a milk discard or meat withhold.