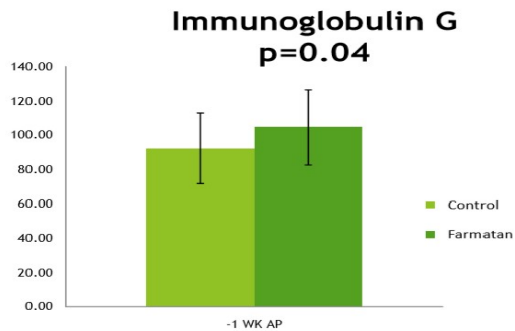


Farmatan – Impact on animal Health

- ⇒ Protects the gut – improve lower gut wall integrity by improving tight junctions between cell walls preventing leaky gut and toxin absorption from pathogens such as Coccidiosis, Cryptosporidium, Clostridia, E. coli while boosting good bacteria.*
- ⇒ Reduces pathogen load – naturally occurring Gallic and Ellagic acid in the tannins reduce bacteria growth at higher pH in lower GI tract.*
- ⇒ Improves liver function – efficient protein digestion reduces ammonia, improves feed conversion with increased milk production and IgG's in Colostrum.*



- ⇒ Study found 12-15% improvement in IgG's in Colostrum

*Buzzini et al, Mini-Reviews in Medicinal Chemistry, 2008, Antimicrobial and Antiviral Activity of Hydrolysable Tannins

**Tanin Sevnica R31: Simeunovic; "Effects of Farmatan on dairy cows in transition and quality of Colostrum"

>30,000 beef cows fed in 2020

1676 Head, 6 ranchers, Aberdeen SD

- ⇒ Consistent 10% death loss from scours
- ⇒ 2019: treated >50% of their calves
- ⇒ Lost 175 calves
- ⇒ 2020: Fed 15g for entire program
- ⇒ Lost 2 calves total, treatments <5%

225 Cow/Calf producer, S. Dakota

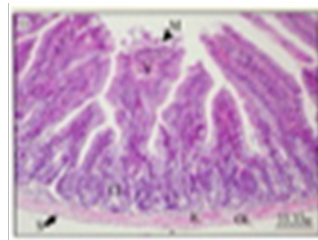
- ⇒ 2017: 110 scours, 25 deaths (Crypto)
- ⇒ 2018: 6 scours, 0 scour deaths
- ⇒ 2019: 4 scours, 0 scour deaths
- ⇒ 2020: 3 scours, 0 scour deaths

320 Cow/Calf Producer, Kansas

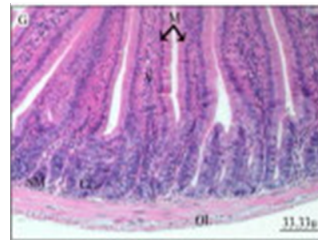
- ⇒ 2018: 125 scours, 30 deaths (Cocci)
- ⇒ 2019: 1 scour, 0 scour deaths
- ⇒ 2020: 3 scours, 0 scour deaths

Crypts affected by Cryptosporidium

Without Tannin:

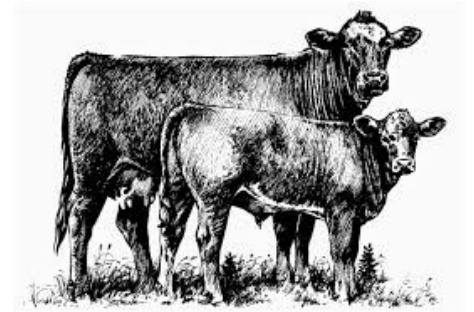


With Tannin:



Recommended Feeding

- ⇒ New Calves
8 cc's Farmatan gel within 24 hours
- ⇒ Milk Replacer/Pellet
5 g/head/ day



- ⇒ Clean Cow/Clean Calf Program
Farmatan 15 g/cow/day (90 days pre calving, 60 days post)



- ⇒ Feedlot
Farmatan 10 g/head/day