



FrontLine®

TECHNICAL INFORMATION FOR
TODAY'S FEED PROFESSIONAL

Milk Products' Dried Bovine Colostrum: *Quality Control and Biosecurity*

Introduction

Milk Products is the exclusive U.S. distributor of a high-quality source of dried bovine colostrum for use in colostrum replacers, colostrum supplements, feed additives, and milk replacers. The intent of this article is to provide detail on how the colostrum is sourced, collected, and transported from participating dairies, as well as what steps are taken to maintain finished product quality and biosecurity.

Characteristics of Participating Dairies Providing Colostrum

- Dairy must hold Grade "A" permit
- Must have approved vaccination schedule in place
- Colostrum collected from 1st and 2nd milkings from cows and 1st lactation heifers
- Farm staff is trained on sanitary collection practices and how to monitor colostrum quality
- Colostrum is placed into sanitary containers and immediately frozen in a deep freeze
- Containers must be free of any matter like manure, dirt, insects, and hair, before and during the filling process
- All abnormal colostrum (i.e., mastitis, foul-smelling) must be discarded and cannot be pooled with other colostrum
- Containers are labeled with lot numbers to facilitate traceability
- Colostrum quality is monitored for each participating dairy in order to facilitate improvements in colostrum management programs and maximize colostrum quality
- Frozen colostrum is regularly picked up and transported in refrigerated trucks to processing facility

Colostrum Processing

- Pasteurized to eliminate pathogens
- Globulin proteins are concentrated
- Instantized to improve mixability

Finished Product Specifications

- Globulin protein – determined by single radial immunodiffusion
- Major nutrients (protein, fat, moisture, ash) – analyzed with AOAC official methods and guaranteed within specific ranges
- Microbiological analysis – guaranteed free of:
 - *E. coli* – determined by AOAC official method
 - *Salmonella* – determined by AOAC official method
 - Coliform bacteria – determined by AOAC official method
 - *Staphylococcus aureus* – determined by AOAC official method
 - *Mycobacterium paratuberculosis* (Johne's) – determined by PCR at an independent laboratory

Storage and Handling of Colostrum Replacers

Colostrum replacers are high-value products that should be stored and handled in such a way to maximize their utilization by the calf. Single-dose pouches should be stored in a dry place and used prior to the expiration date or within 1 year of their manufacturing date. Multi-dose colostrum replacer containers should be stored and handled in such a way that limits introduction of excess moisture, dust, debris, or other forms of contamination that may foster microbial growth and decrease the effectiveness of the colostrum replacer.