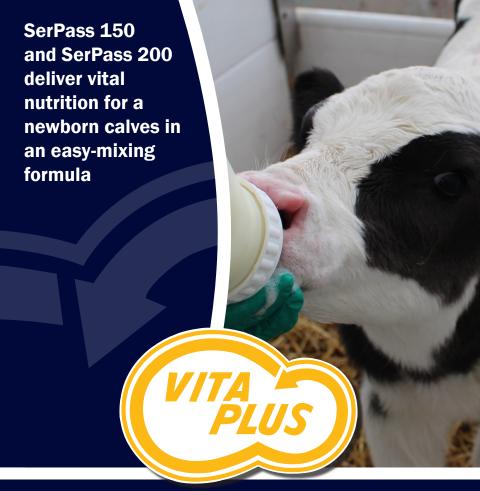
Newborn calf care

The first hours of a calf's life can have significant, long-lasting impacts on calf health and growth. The following steps can help reduce stress and pathogen exposure during this critical time:

- Sanitize all maternity and newborn calf tools, as well as newborn calf feeding equipment. Designate a bottle brush, nipple brush and esophageal tube brush for newborn calf equipment only.
- Wash your boots and wear clean latex gloves and clothing when handling newborn calves. It works well to keep a pair of waterproof bibs in the maternity area.
- Move the newborn calf to a clean, dry, draft-free and well-bedded environment as quickly as possible. Vigorously towel-dry the calf to stimulate blood flow and reduce chilling from a damp haircoat.
- During cold weather, fit the newborn with a calf jacket when it is completely dry.
- Follow the instructions listed on the packet of SerPass 150 or SerPass 200 to ensure adequate mixing. Administer at a feeding temperature of 105°F via nipple bottle or esophageal feeder, preferably within the first hour after birth.
- Using a clean cup, dip the navel with 7% tincture iodine and make sure it saturates the navel area. Note that dipping is more effective than spraying.
- Administer vaccines as directed by your veterinarian.







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SerPass 150 and SerPass 200 premium calf colostrum replacers

SerPass 150 and SerPass 200 are formulated with the latest technology in calf colostrum replacers, providing:

- Convenient and economical delivery of bovine colostrum-derived globulin protein and a blend of fatty acids naturally found in maternal colostrum for increased energy and digestibility
- A go-to option when maternal colostrum is in short supply, labor is limited or in situations that pose a biosecurity risk

Two easy-to-use options to meet your calves' needs

- SerPass 150 delivers 150 grams of globulin protein in 2.1 quarts of mixed colostrum replacer solution
- SerPass 200 delivers 200 grams in 2.2 quarts of mixed colostrum replacer solution

Both products come in convenient single-dose packets. The easy-mixing formulas mix in warm water in less than 30 seconds.

Key features to support newborn calves

- Convenient: Single-dose packaging and easy-mixing formula mix in warm water in less than 30 seconds to deliver
- Safe: Salmonella-, E. coli- and Johne's-negative
- Effective: Laboratory-tested and field-proven high rate of globulin protein transfer efficiency

Table 1. Globulin protein delivered in SerPass 150 and SerPass 200.

	SerPass	Ser Pass 200
Dose size, g/packet	560	660
Bovine colostrum-derived globulin protein, % dose	26.8	30.3
Bovine colostrum-derived globulin protein, g/L ^a	75	96

^aGood quality colostrum immunoglobulin G (IgG) concentration ≥50 g/L (Morrill et al., 2012).

Table 2. Passive transfer field data results for calves fed either SerPass 150 or SerPass 200 within one hour of birth on a commercial dairy farm.

	SERPASS	SERPASS 200
Number of calves ^a	42	42
Serum total protein, g/dL ^b	4.95	5.21
Serum IgG, mg/mL°	15.1	17.5
Calves achieving passive transfer, % ^d	83	88
Apparent efficiency of IgG absorption, %e	33.7	29.0

^aField data collected at a commercial dairy farm in Wisconsin.

Table 3. Growth field data results for calves fed maternal colostrum, SerPass 150 or SerPass 200 within one hour of birth on a commercial dairy farm.

	Maternal colostrum ^a	SERPASS 150	SerPass 200
Number of calves	30	30	30
Serum total protein, g/dL	6.20	4.95	5.21
Birth bodyweight, Ib	78.1	77.0	76.0
Days in nursery	69.4	71.0	71.1
Average daily gain, lb/d	1.68	1.64	1.60

^aColostrum Brix = 26.4%.



^bMeasured using Misco refractometer total protein.

^cMeasured at University of Wisconsin-Madison School of Veterinary Medicine using radial immunodiffusion assay.

Passive transfer defined as serum IgG >10 mg/mL at 24 hours of age (McGuirk and Collins, 2004).

eApparent efficiency of IgG absorption calculated as (serum IgG at 24 h / IgG fed, g) x birth bodyweight, kg x 0.09 (serum volume as percent of bodyweight).