

# COLOSTRUM SUPPLEMENTS

## 1. They are supplements.

- They are NOT colostrum replacers.
- They do NOT provide nutrition for newborn calves.

## 2. What do they supplement?

- They do add antibodies (or immunoglobulins).
- They do NOT add maternal immune cells.
- They do NOT add minerals and vitamins.
- They do NOT add energy.

## 3. How well do they supplement antibodies?

- They vary in immunoglobulin (Ig) content. Many contain only about 40 to 50g of Ig.
- Successful passive transfer can be achieved with poor quality colostrum when one package of supplement is fed no later than four hours after birth. This assumes that 3.5 to 4 litres of colostrum have also been fed. Depending on the brand used, one package of supplement may be one packet, tube or bolus of supplement. “Poor” quality colostrum is defined as 30g/litre. This would be in the red zone if you use a Colostrometer® to measure antibody concentration in colostrum.
- Very poor quality colostrum would require two, if not three, units of supplement to get the calf up to successful passive transfer level.

Actual success is doubtful with only one supplement dose. “Very poor” quality is defined as less than 20g/litre.

- Effective use depends on following the manufacturer’s instructions carefully. For powdered supplements, dilute with water. Avoid adding powdered supplements directly to colostrum. This practice may substantially depress the number of antibodies absorbed.

#### 4. Strategies for using supplements

- **Most cost effective** – evaluate antibody levels in all colostrum, both cow and heifer colostrum using a Colostrometer® or Brix refractometer. Then, when poorer quality colostrum must be fed, use a supplement. Continue feeding 3.5 to 4 litres of clean colostrum as soon as possible after birth. Only during periods of the year when pathogen exposure may be higher than usual consider using a supplement with all calves. This is often during wet and changeable weather.
- **Moderately cost effective** – no evaluation of antibody levels. When available choose to feed colostrum from cows rather than heifers. Supplement all the heifer colostrum that must be fed. During periods of the year when pathogen exposure may be higher than usual consider using a supplement with all calves.
- **Least cost effective** – no evaluation of antibody levels. Add a supplement for every calf regardless of the colostrum fed and pathogen exposure.
- For all supplement-use strategies it is cost effective to monitor passive transfer of antibodies. For the procedure go to [www.calfacts.com](http://www.calfacts.com), scroll down to the resource “Testing for transfer of passive immunity.”