

Why New Zealand Colostrum Is Used Within the Stem Cell Worx Intraoral Spray

The bovine colostrum produced in New Zealand has earned world-wide respect and recognition for its purity and quality.

Those who have researched and used this unequalled health supplement have long been convinced that New Zealand dairy farmers produce the world's best colostrum. Farmers from the United States of America agree New Zealand has many of the best farming practices they have ever seen. The New Zealand climate allows pastures to grow readily, enabling the cows to be pasture-fed all year round. Because calves are born without any immunity to airborne, disease-causing organisms, their mothers' colostrum must contain a very large amount of immune and health factors. Due to this, New Zealand cows have a much more developed immune system. Also as pasture-fed cows are exposed by grazing to the complete spectrum of antigens in their natural habitat, they must develop a stronger natural immunity. As a result bovine colostrum has up to 21 times the growth and immune factors of human colostrum, making it the richest source of colostrum available.

The intensely managed, year round pasturelands in New Zealand result in the cows requiring no supplemental gains, resulting in the cow's being pesticide, antibiotic and hormone free.

The cows all calve at the same time of the year (within a three month period) so the colostrum is collected fresh and processed immediately. This is a critical advantage as in most other countries calving occurs all year round and the colostrum must be collected in large batches where it is then stored frozen and thawed prior to processing. Bovine Colostrum processed fresh is far more effective as it does not cause damage to the protein molecules, immunoglobulin's, growth factors and other biologically active components. The bovine colostrum we have sourced has only been spray dried, with no freezing or heat treatment whatsoever.

The bovine colostrum we have sourced is organic in that the collection is immediate, and the active ingredients are in the same proportions as originally intended.

Colostrum Benefits

Colostrum's Immune Peptides

- Immunoglobulins (A, D, E, G and M) help neutralize toxins, viruses and bacteria.
- Lactoferrin is an iron binding protein with antiviral, anti-bacterial, anti-fungal and anti-inflammatory effects.
- Proline-rich polypeptides (**PRPs**) are extremely small immune signaling peptides that regulate the thymus gland, which is the producer of T-Cells. PRP's stimulate weak immune systems and help re-balance over-active immune systems. Stated more technically, PRP's are cytokine precursors that help modulate cytokine levels, and thus help balance immune responses.
- Lymphokines are hormone-like peptides that help regulate the immune response.
- Cytokines help regulate the immune response, boost the activity of T-cells, and control cell-to-cell communication. These cytokines include: Interleukin type-1, Interleukin type-4, Interleukin type-6, Interleukin type-10, Interleukin type-13, Interleukin type-14, Beta-interferon (IFN-beta), Interferonalpha (TFN-alpha), Interferon-gamma.

- Other Immune Factors are secretory IgA, IgA specific helper, B lacto globulin, lactalbumin, albumin, prealbumin, alpha 1-antitripsin, alpha 1-fetoprotein, alpha 2-macroglobulin, hamopexin, haptoglobin, beta 2 microglobulin, alpha 2-AP glycoprotein, C3, C4 and orosomucoids.

Colostrum's Natural Vitamins

- Vitamin B6
- Vitamin B12
- Vitamin E
- Vitamin A (from carotene)
- Vitamin C
- Thiamin (Vitamin B1)
- Folic Acid B9)
- Pantothenic Acid (B5)
- Riboflavin (Vitamin B2)
- Beta-carotene
- Retinoic Acid

Colostrum's Natural Minerals

- Calcium
- Chromium
- Iron
- Magnesium
- Phosphorus
- Potassium
- Sodium
- Zinc

Colostrum's Natural Growth Factors

Growth factors help signal *growth, repair and regeneration* of tissue. For example, colostrum is known in the cosmetic industry as a natural source of Epithelial Growth Factor, which does enhance the regeneration of skin and maintenance of skin elasticity. Similarly, colostrum is believed to enhance the regeneration of stomach and gut cells, and reduce the intestinal permeability to bacteria and viruses associated with *leaky gut syndrome*.

Other regenerating growth factors include:

- Growth hormone (GH)
- Insulin type growth factor (IGF-1)
- Insulin type growth factor (IGF-2)

- Transforming growth factor (TGF-alpha)
- Transforming growth factor (TGF-beta)
- Epidermal-GF
- Fibroblast-GF
- Platelet-derived-GF

Bovine Colostrum's Other Components

- Lactoperoxidase-thiocyanate is an anti-microbial enzyme.
- Transferrin binds and transports iron, inhibiting bacterial intestinal pathogens
- Lysozyme is an enzyme capable of destroying bacteria and viruses on contact.
- Xanthine Oxidase oxidizes bacteria through its ability to release hydrogen peroxide.
- Lactalbumin raises brain serotonin levels, which can positively effect improves mood and counter stress hormones.

In Summary:

- New Zealand produced bovine colostrum is world renowned for its high quality and purity due to the containment of all its nutrients.
- The colostrum is collected fresh and processed straight away.
- The collection of colostrum is carefully controlled and no freezing of this valuable substance is allowed. The colostrum has been collected from cows within 48 hours of their giving birth. Sufficient colostrum is left for the calves and only surplus colostrum is harvested.
- There has been no freezing or heat treatment of the freshly collected bovine colostrum which destroys valuable enzymes.
- This natural, high grade bovine colostrum is high in in immunoglobulin IgG, lactoferrin and growth factors.
- Year round pasture fed New Zealand dairy herds enable the cows to develop strong immunity to a wide range of pathogens compared to all other herds.
- New Zealand dairy herds are certified free of diseases such as BSE (mad cow disease) and Foot & Mouth diseases.
- The bovine colostrum we are using is harvested from New Zealand pasture fed cows which are free of artificial hormones.
- The colostrum is organic in that the active ingredients are in the same proportions as originally intended.