



# Clinical Nutrition



## **Bioactive Polysaccharide Complex®(BPC) is the MOST Biologically Active Commercially Available Aloe Vera Made**

- 1) An Aloe vera bio-activity assay has yet to be perfected. In the absence of such an assay and in light of published literature it is readily apparent that Acemannan is the active ingredient in Aloe vera. Acemannan determines biological activity in humans and other mammals.
- 2) BPC® has 3 to 10 times the Acemannan content compared to other commercial Aloe vera due to farming practices, harvesting techniques and proprietary processing developed by TeloYouth.
- 3) TeloYouth is the only company that currently states its Acemannan content on every Certificate of Analysis. BPC® averages 18% Acemannan per lot.
- 4) Until the introduction of BPC® commercial producers of Aloe vera have tried to specialize themselves by marketing differentiation. Some of the common marketing techniques used are molecular weight, specialized processing, or unique names to brand a commodity.
- 5) Aloe vera quality and efficacy is measured by Acemannan content. BPC® is the most bio- active commercially available Aloe vera made.

Aloe is a member of the lily family that has been used topically and ingested for thousands of years. The active ingredient in the aloe plant is found in the inner leaf gel and is considered safe and effective if processed properly. It is a polymannan known as Acemannan, whose structure and functional effects in wound healing and overall health have been very well established.<sup>1</sup>

Authoritative sources consider Acemannan to be the main active ingredient in properly processed Aloe vera inner leaf gel. In the early 1980's an acetylated polymannose, Acemannan, was identified as an active component of Aloe vera gel.<sup>2</sup>

Acemannan works in part by stimulating the macrophage, a key component of the immune system that is responsible for a wide range of potential health benefits. Acemannan has shown to accelerate wound healing.<sup>3</sup>

Improper manufacturing processes used by many aloe product manufacturers can produce Aloe products with little or no Acemannan.<sup>4</sup> Currently, most manufactures do not assay for Acemannan content in their final products. Only when the Aloe industry begins to routinely use validated assays to ensure the Acemannan content and therefore the efficacy of the commercial aloe product will consumers consistently experience the astonishing health benefits attributed to fresh Aloe.

Aloe's active ingredient, Acemannan, is partially and sometimes fully removed by manufacturers during the processing phase. Many of the preservatives added to Aloe products for bacterial control are toxic to skin fibroblast, thus outweighing the benefits and preventing the consumer from receiving the potential benefits of Acemannan. Currently, stabilized Aloe products are defined as products that contain enough preservatives to control microbial growth. Instead, a stabilized aloe product should maintain the right amount and size of Acemannan during the product's shelf life.<sup>5</sup>

#### **REFERENCES:**

1. Eric H. Aguayo EMBA, John E. Hall DDS, Bill H. McAnalley PhD, Shayne A. McAnalley MD, David N. McCollum, Danny Sun MD. An Introduction to A. vera and Its Components. *The Science Behind Aloe: The Healing Plant*. 2009; (2):9-12.
2. Johnson AR, White AC, McAnalley BH. Comparison of common topical agents for wound treatment: Cytotoxicity for human fibroblast in culture. *Wounds: a compendium of clinical research and practice*. 1989; (3): 186-192.
3. Erik H. Aguayo EMBA, John E. Hall DDS, Bill H. McAnalley PhD, Shayne A. McAnalley MD, David N. McCollum Danny Sun MD, *The Science Behind Aloe: The Healing Plant, Identification and Isolation of Acemannan* 2009; (3): 19-21.
4. Turner CE, Williamson DA, Stroud PA, Tally DJ. Evaluation and comparison of commercially available Aloe Vera L. products using size exclusion chromatography with refractive index and Multi-angle laser light scattering detection. *International Immunopharmacology*. 2004; 4(14)1727-1737.
5. Erik H. Aguayo EMBA, John E. Hall DDS, Bill H. McAnalley PhD, Shayne A. McAnalley MD, David N. McCollum MD, Danny Sun MD. Properly Processing and Manufacturing Aloe Products. *The Science Behind Aloe: The Healing Plant*. 2009; (4): 25-27.

#### **DISCLAIMER:**

Oral ingestion of Aloe Vera has not been approved for the treatment, cure, or mitigation of any disease in humans.