

## Product Range Overview

Although our range is most popular with Health and Cosmetics industries our product has found an unusual niche in the farming community. There are a number of organic farmers who have found that our bitter fraction range aids them in ridding their livestock of internal and external parasite.

For this purpose we provide the following products:

### Bitter Fraction

1. Bitter spray-dried powder – unique in the world!
2. Bitter crystals lumps or milled to size based on customer specifications.



### Gel Powder

1. Pure Aloe Gel powder
2. Aloe Gel powder 200:1 – this is our Pure Aloe Gel powder mixed with one of the following carriers based on customer specifications: Maltodextrine; Lactose; Purac (lactic acid); Raftilose (Inulen)



# Aloe ferox Gel Powder

## Product overview and Production Process

The Aloe ferox plant derives its name from the ferocious thorns (ferox Latin), which cover the leathery surface of the leaves. These thorns protect the all-important life sustaining fleshy core of the leaf from Africa's numerous herbivores.

There are three sections of the *Aloe ferox* leaf, which are used to manufacture health and skin care products. Each of these sections contains various health-giving properties, all-valuable to our physical well-being.

The GREEN EPIDERMIS (skin). This is dried and milled to provide a valuable natural fibre that is used as a dietary supplement and health tea.

The aloin-rich BITTER SAP, which is found in vascular bundles under the epidermis. This has natural antibiotic and anti-fungal properties and is processed into powder, crystals or tablets for the detoxification and healing of the body.



The non-bitter inner, translucent and FLESHY FILLET is the nutritional core of the plant. This is processed into jelly (liquid gel) used in health drinks and white gel powder used as an additive for cosmetics and health products.

This section of the Aloe is rich in amino acids, minerals, vitamins, polysaccharides, enzymes and lipids all essential for good skin care. The cells in the inner fillet of the Aloe ferox are not only rich in healing properties but have an exceptional ability to retain water and are thus, highly effective as moisturising skin care agents.

The degree of concentration of these extracts is an indication of the aloe-polysaccharide content in relation to that found in natural aloe gel juice as specified by the USA Aloe Vera/Barbadensis model.

## PRODUCTION PROCESS

### Gel Powder

In this whole leaf extraction process; fresh aloe leaves are pulped and pressed to obtain a golden liquid containing a mixture of both gel juice and bitter sap. After fine filtration, a self-sterilising organic solvent is used to remove the bitter sap and to extract the gel juice solids. This bitter-free precipitate is spray-dried to produce a fine powder containing only unique aloe gel nutrients.

**APPLICATIONS:** It is preferable to blend the pure Aloe Gel with Malto Dextrin, or Lactose, or Purac (Lactic Acid) to achieve a user-friendly final product.

1. Aloe Gel is a superior skin penetrant that exhibits soothing, healing and regenerative properties, internally and externally.
2. GP200: 1 can be incorporated on its own or as a liquid suspension in all types of skin lotions, skin creams, regenerating gels, facial tonics, after shaves, shampoos, suntan lotions, sunburn protective, balms for skin irritation, as well as health beverages and tonics.

This commercial starch replaces the mass of common free sugars and salts that are too fine to precipitate, as well as the mass of unwanted bitter sap. It also serves to improve the solubility of the Aloe Gel solids, which are partially insoluble in pure water. This practical final product is called Aloe Ferox Gel Powder 200:1.

## Aloe ferox Bitter Fraction

### Dried to yellow powder

#### Aloe ferox Bitter Powder

A fine bitter powder spray dried from bitter raw juice.



Can be capsulated and used as a natural laxative and detoxifier.

#### Aloe ferox Bitter Raw Juice

A thick bitter sap tapped from fresh aloe leaves

### Bitter Lump

The fresh bitter sap, collected from aloe ferox leaves is boiled using the traditional method. This process can take up to 5 hours when boiling 100 kg of bitter sap up to the point where dehydrated aloe lump is obtained.

### Bitter Powder

This is an alternative process to the traditional lump/solid producing method. Bitter sap is collected from freshly harvested leaves, filtered and spray-dried to produce a fine powder.

## Harvesting and processing of Aloe ferox Bitter Sap

The harvesting of bitter sap and processing to lumps has been practiced for many years. The aloe lump with its high aloin content is a sought after product. It was mainly exported to Europe where it was and still to this day undergoes further processing and finds its use in medicinal and pharmaceutical products.

The harvesting of aloe leaves is done manually.

1. The bottom rows are collected from each plant and stacked in a circle. This is done in order is to collect additional sap that filters out of the leaves.
2. The extruded sap is collected and sieved into a clean container supplied by the company to the harvesters or “tappers”.
3. Products sold to the factory by approved “tappers” are labelled with relevant information so that the finished product may be traced back to its original raw material.
4. To ensure that raw materials used in all production processes are safe, all purchases are strictly controlled and monitored.



The company buys the harvested sap from selected “tappers” and processes it. The results are lump, lump powder or spray dried powder.

**APPLICATIONS:** 100mg of ABP taken internally produces a natural laxative. It is also known to relieve the symptoms of irritable bowel syndrome (IBS) and arthritis. Its pesticidal/fungicidal nature also has the effect of eliminating parasital organisms in the digestive system. Applied externally it stimulates hair growth, exhibits an insecticidal tendency and appears to enhance healing when combined with aloe gel nutrients. This makes the product ideal for digestive tonics, insecticidal preparations, treatment/pet shampoos and body lotions.

# Overview of Aloe ferox Liquid Gelly / Pectin

## Overview

By applying a patented process, this product is manufactured using the following method.

The chaff obtained from milled Aloe leaves remaining from the Gel powder process is called weigh. The weigh chaff is placed in stainless steel pots where de-bittering takes place. De-bittering is a washing process, which continues until the chaff is aloin free.

Through the application of a press and filtering process, aloe ferox pectin is extracted from the de-bittered chaff. The product obtained is light to dark brown and sets like normal jelly once it has cooled down. Aloe ferox liquid gelly, as it is known, forms the basis of the following products:



1. Aloe juices and drinks
2. Cosmetics products
3. Skincare products

## Applications

Water-soluble aloe polysaccharides at 50 times the natural level can be incorporated into the water phase of any formulation by substituting the extract for a portion of the water content.

## Comment

The total solubility, high concentration and low cost of the aloe nutrients in this extract present cosmetic and beverage manufacturers with a unique opportunity to apply the product as a healthy and beneficial additive as apposed to a mere marketing tool.



## **Aloe ferox Beverages**

### **Introduction**

Aloe ferox pectin (aloe liquid gelly) is the base product for all the drinkable products manufactured by our factory in Albertinia.

Our beverages serve as a nutritional additive, or as a normal refreshing juice depending on the formulation. Based on customer preferences, it may be consumed “neat” or with juice.

A number of our buyers purchase our standard formulated drinks and juices and label these under their own brand names. We also formulate and produce Aloe ferox drinks according to customer specifications. Some of these include House of Aloes, Herbal Solutions, Natures Choice and Glitter Products.

This same product is also purchased by buyers and applied to skincare, cosmetic and health products.



The Aloe beverages manufactured by our factory are formulated with or without:

1. Preservatives
2. Colorants and sweeteners
3. Flavourings
- 4.

## **Aloe ferox Fibre Products**

### **Introduction**

Our two main groups of products are those with Aloin and those containing minimal Aloin in the dried fibre.

1. Briefly, the process runs as follows:
2. The “tapped” leaves are milled or shredded and pressed.
3. The leaf chaff from this process is sun dried or dried with a machine at a temperature of <40 degrees Celsius.
4. The dried chaff is milled and processed through various sieves.

## **Aloe Leaf Products**

<b>PRODUCT CODE</b>	<b>DESCRIPTION</b>	<b>WEIGHTS/ MEASUREMENTS</b>	<b>PACKAGING</b>
<b>ATEA</b>	Aloe Ferox Tea Leaves Made from dried aloe chips. Has a slightly bitter taste. Used for refreshment and as a natural detoxifier.	Gram	250g Jar with a screw cap
<b>BLKTEA</b>	Aloe Ferox Tea Leaves	Kilogram	1Lt, 5 Lt and 20 Lt White Buckets with press lid
<b>BFP001</b>	Aloe Ferox Bitter Fibre Powder A fine fibre produced from dried aloe leaves that still contain bitter fraction. Health Product additive.	Kilogram	1Lt, 5 Lt and 20 Lt White Buckets with press lid
<b>FIBRE</b>	Aloe Ferox Fibre Powder Without Bitter A fine fibre made from dried aloe leaves with bitter fraction removed. Used as a natural gluten-free fibre additive.	Kilogram	1Lt, 5 Lt and 20 Lt White Buckets with press lid.
<b>TEABLEND</b>	Aloe tagless teabags blended with Rooibos and Honey bush tea	Pouches, 20 teabags per pouch	100 pouches per box
<b>TEABAG</b>	Aloe tagless teabags without any blending.	Pouches, 20 teabags per pouch	100 pouches per box

### **Product Applications**

The bitter fibre products, ATEA, BLKTEA, TEABLEND and TEABAG can be used for refreshment, or as a natural detoxifier.

The fine fibre, available with or without bitters, is used as a natural gluten-free additive.

## CONCLUSION

As science and technology evolves, there is a worldwide trend to turn to the wisdom of the past and again take advantage of the natural, healing properties of plants. Organic Aloe is committed to provide an eco-friendly, safe and healthy product. to those who seek it.

### Organic Certification

When applying for organic status the company was inspected in March 2006 according to EU-Regulation 2092/91 and USDA, AMS 7 CFR Part 205, National Organic Program for most of its products. Organic Certification was duly approved for all products applied for.

### Quality Control

The company follows GMP guidelines and principles in its manufacturing processes. Products can be traced from the original suppliers of raw material to the finished product.

Independent laboratories test our products to ensure that we maintain safe and high quality production.

*Products are also tested for the following:*

MICROBIAL SPECIFICATIONS FOR ALOE FEROX PRODUCTS USED AS RAW MATERIAL IN FINAL COSMETIC AND OTHER PRODUCTS.

### Test and method used

Test	Method
Total aerobic count	SABS ISO 4833
Coliforms	SABS ISO 4832
Straph aureus	SABS ISO 6888-1
Yeast & Moulds	SABS ISO 7954
E. Coli	SABS ISO 16654
Salmonella	SABS ISO 6579
Bacillus cereus	SABS ISO 7932
Pseudomonas	SABS ISO 7932

### Production Standard

Test	Result
Total aerobic count	< 100 cfu
Coliforms	<1 cfu
Straph aureus	<1 cfu
Yeast & Moulds	<1 cfu
E. Coli	<1 cfu
Salmonella	<1cfu
Bacillus cereus	<1 cfu
Pseudomonas	<1 cfu

The products manufactured from the *Aloe ferox* by Organic Aloe (Pty) Ltd. are safe for human and animal consumption and can be used as:

1. Ingredients for cosmetic, skincare and health products
2. Food supplements for humans and animals
3. Natural beverages
4. Detoxifiers

Products manufactured by our company are sold in bulk to a cross section of industries, from cosmetic formulating companies and distributors to individual farmers.