

# PRODUCT SPECIFICATION

## Product

## ORGANIC AMARANTH



SCIENTIFIC NAME: *Amaranthus caudatus*

Family: Amaranaceas

Synonym:

- Quechua: kiwicha, quihuicha, inca jataco; ataco, ataco, sankurachi, jaguarcha (Ecuador), millmi, coimi.
- Aymará: qamasa
- Spanish: kiwicha, amaranto, trigo inca, achis, achita, chaquilla, sangorache, borlas.
- Portuguese: amaranto de cauda
- English: amaranth, love-lies-bleeding, red-hot cattail, bush green, Inca wheat (normally used for quinoa)
- French: amarante caudée

### ORIGIN

The Amaranth has been domesticated, cultivated, and utilized for more than 4000 yrs. in Peru, extremely venerated since Inca civilizations. This plant was a precious food during the ancient Inca times due to its superior nutritional values and its flexibility to adapt to a variety of climates.

### DESCRIPTION

This beautiful color plant is a native cereal from Peru. It grows between 1,000 to 3,200 meters A.S.L. Amaranth contents all the essential amino acids that our body requires specially lysine and methionine. The grain contents more than 13% of proteins and the level of phosphorus, calcium, magnesium and potassium are in general higher than those found in common cereals. This product does not contain Saponine and alkaloids.

### SPECIFICATIONS

Physical Characteristics		
Variety Name	Oscar Blanco	Centenario
Inflorescence Color	Red	Green
Appearance	Small round grains	
Grains Color	Creamy	
Taste	Characteristic	
Odour	Characteristic	
Humidity	12.0 % Max	
Saponine	Absence	

### MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter	
Count of Aerobic Mesophiles	10 <sup>5</sup> ufc /g. max
E-Coli	3 ufc /g. max.
Salmonella	negative in /25 g.
Yeast	1,000 ufc /g. max
Mold	10,000 ufc /g. max.

## GENERAL ASPECTS

Maximum Allowed Parameter	
Contrasting varieties	< 0.01 % max
Black grains	< 0.05 % max
Deformed grains	< 0.01 % max
Foreign matter	< 0.01 % max

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion		
Main components (gr)	Crude Amaranth	Roasted Amaranth
Energy (Kcal.)	377	428
Water	12.0	0.7
Protein	14.5	15.5
Fat	7.1	7.8
Carbohydrates	64.5	74.3
Fiber	2.5	3.0
Minerals (mg)		
Calcium (Ca)	236	283
Potassium (K)	640	800
Phosphorus (P)	453	502
Iron (Fe)	7.50	8.10
Vitamins (mg)		
Rethinol / Vitamin A	-	-
Thiamin / Vitamin B1	0.30	0.14
Riboflavin / Vitamin B2	0.15	0.32
Niacin	0.40	1.30
Vitamin C	2.40	3.00

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

Indoor, ventilated, dry environment (temperature of 18°C)

## USES

Amaranth can be used as cereal for breakfast, as flour in the Baking Industry and Biscuits. It is also used in the preparation of porridge, soups, tortillas, drink, desserts, to enrich other flours, in the preparation of chocolates products, energy bars, etc. Also we can obtain a puffed amaranth by a process of heat an expansion like pop-corn. Due to its nutritional value Amaranth is considered an ideal diet for infants, students, athletes, convalescents and elderly people.

## PRESENTATION

Multiwall paper bags of 25 Kg / 25 lb net weight.

## CUSTOMS TARIFF

100 890 9200

## CERTIFIER BODY

Control Union Certifications

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve

# PRODUCT SPECIFICATION

## Product

## AMARANTH FLAKES



Amaranth Flakes as a breakfast and baking substitute. Amaranth isn't just a great Scrabble word - it refers to an ancient grain native from Peru.

This seed is highly nutritious and also easily digestible by many. The flake form can be found in natural foods and specialty foods stores, usually located near products like dried cereals

- It does not contain gluten
- It has high contain of protein, vitamins and minerals
- Good balance to level of amino acids
- It has high contain of lysine
- Content of oily acids and dietetic fiber

### PROCESS

Organic amaranth flakes are made from organic amaranth flour originated from the rural areas of Arequipa and Andahuaylas in Peru. The organic amaranth flour is mixed with water to dough. This dough is cooked under pressure in an extruder. During this process the dough is transformed into small pellets which are dried and then rolled into flakes and toasted to become tasty and crisp amaranth flakes.

### DESCRIPTION

The pellets can be found in various sizes, depending on whether the finished amaranth flakes are intended to be used as a breakfast cereal, as flakes to be added to musli, or as an ingredient in chocolate, cakes, ice cream, breadcrumbs, toppings, etc.

### SPECIFICATIONS

Physical Characteristic	
Appearance	Pellets sleek and curved
Color	White – Cream
Flavor	Characteristic
Odour	Characteristic
Humidity	9.0 % max.
Saponine	Absence

### MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter		
Aerobic Mesophiles	ufc /g.	10 <sup>5</sup> max
Coliforms	NMP /g.	2 max
E-Coli	NMP /g.	2 max
Salmonella	in 25 g	Negative
Yeast	ufc /g.	1,000 max
Mold	ufc /g.	1,000 max

## GENERAL ASPECTS

Maximum Allowed Parameter	
Diameter	2mm. Ø – 3mm. Ø
Thickness	0.2mm. – 0.3mm.
Strange material	Absence

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion	
Energy (Kcal.)	352.63
Protein	15.78
Fat	7.89
Carbohydrates	71.05
Dietary Fiber	10.52
Minerals (mg)	
Calcium (Ca)	17.11
Magnesium (Mg)	25.00
Sodium (Na)	35.00
Phosphorus (P)	331.58
Iron (Fe)	1.84
Vitamins (mg)	
Niacin	2.63
Vitamin C	2.63
Alpha Tocopherol / Vit. E	1.32

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

Indoor, ventilated, dry environment (temperature of 18°C)

## USES

It is use essentially as substitute of the oats in the breakfast, additional for your texture to laminate and easy boiling is used as complement in soups, juices, refreshments and confectionary in general. Also for your high nutritional value it is ideal in the diet of the babies, students, sports, convalescent persons and the third age persons.

## PRESENTATION

Multiwall paper bags of 10 Kg net weight.

## CUSTOMS TARIFF

1904 10 00 00

## CERTIFIER BODY

Control Union Certifications

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve

# PRODUCT SPECIFICATION

## Product

## PUFFED AMARANTH



Amaranth is one of the most nutritious 'grains' on the planet- second only to quinoa. Such as quinoa, amaranth hails from Perú, it is a seed that behaves like a cereal grain, and is very high in protein and fiber.

It also has a more complete protein profile than most other grains, containing certain essential amino acids that are not commonly found in other grains. Amaranth has twice the iron as wheat does; though vegetarian sources of iron are generally difficult to absorb.

### PROCESS

Amaranth, after tempering to predetermined moisture content, is fed at a steady rate to a cylindrical popping drum having perforations sufficiently small to contain both raw and expanded amaranth. Popping is accomplished with air heated to a temperature of from 250 °C, An auger in the popping container is rotated to move the amaranth through the container as it is being popped, further agitating the amaranth..

### DESCRIPTION

Amaranth is a highly nutritious small seed used as an alternative to grains for people with gluten intolerance and grain allergies as well as those who want to eat more healthy foods, alternative grain super food that delivers measurable health benefits. Amaranth has a slightly sweet, nutty (no nuts added) toasty flavor to a more robust, full-bodied whole grain characteristic.

### SPECIFICATIONS

Physical Characteristics	
Appearance	Porous and Roasted Spherical Grain
Color	White to Cream
Flavor	Characteristics
Odour	Characteristics
Humidity	7.0 %
Saponine	Absence

### MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter		
Mesophilic bacteria	ufc /g.	10 <sup>4</sup> max
Coliforms	NMP /g.	1 max
E-Coli	NMP /g.	1 max
Salmonella	in 25 g	Negative
Yeast	ufc /g.	100 max
Mold	ufc /g.	100 max

## GENERAL ASPECTS

Maximum Allowed Parameter	
Diameter (Sphere)	1.00 mm. – 2.00 mm.
Strange Material	Absence

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion	
Energy (Kcal.)	389.29
Protein	11.78
Fat	5.71
Carbohydrates	72.14
Dietary Fiber	8.90
Minerals (mg)	
Calcium (Ca)	17.02
Phosphorus (P)	151.89
Iron (Fe)	1.51
Vitamins (mg)	
Thiamin / Vit. B1	0.11
Riboflavin/Vit. B2	0.11
Niacin	0.43

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

Indoor, ventilated, dry environment (temperature of 18°C)

## USES

Puffed amaranth offers a tasty and nutritious start to your day. NO Contains Gluten, Wheat, Dairy, Peanuts, Tree Nuts, Egg, Soy, Fish and Shellfish. Strict gluten-free and allergen-free manufacturing practices are followed to ensure the finest quality and integrity.

## PRESENTATION

Multiwall paper bags of 4 Kg net weight.

## CUSTOMS TARIFF

1904 10 00 00

## CERTIFIER BODY

Control Union Certifications

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve

# PRODUCT SPECIFICATION

## Product

## AMARANTH FLOUR



A type of flour milled from seeds obtained from the amaranth plant. The small, lens shaped seed or grain is light tan in color and provides a very mild tangy.

Amaranth flour is a gluten-free flour product. Because of the lack of gluten, it must be added to other types of flour when preparing yeast breads. A suitable mixture contains one part of amaranth flour to three or four parts of gluten flour (such as wheat flour).

### PROCESS

The flour can be elaborated of raw, roasted or germinated seeds, it is conditioned before and passed by a thermal treatment (Toasted) to 334°F in order to improve their physical characteristics of digestibility. Later it is grounded to obtain the following fractions: broken, reduction, granillo, and bran. The Flour is obtained of the same process, from the sifted one by mesh N° 40 finally this one is mixed and homogenizer to obtain the final product.

### DESCRIPTION

Amaranth flour is a high fiber, poly unsaturated and high protein, gluten-free grain with a balance of amino acids that exceeds the compositional balance of grains such as wheat, corn, rice or oats. In fact, when Amaranth is combined with wheat in cereals, breads or other food products, the protein balance is nearly a perfect 100 on a theoretical human need nutritional chart.

### ESPECIFICATIONS

Physical Characteristic	
Appearance	Powder Texture Dies
Color	Cream
Flavor	Characteristic
Odour	Characteristic
Humidity	12 %
Saponine	Abscense

### MICROBIOLOGIA

Maximum Allowed Parameter		
Mesophilic Bacteria	ufc /g.	10 <sup>5</sup> max
Coliforms	NMP /g.	3 max
E-Coli	NMP /g.	3 max
Salmonella	in 25 g	Negative
Yeast	ufc /g.	10,000 max
Mold	ufc /g.	10,000 max

## GENERAL ASPECT

Maximum Allowed Parameter	
Size of Grain	>180 $\mu$ / max 25%
Strange Material	Abscence

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion	
Energy (Kcal.)	331.69
Protein	10.49
Fat	2.23
Carbohydrates	73.92
Dietary Fiber	1.29
Minerals (mg)	
Calcium (Ca)	459.31
Phosphorus (P)	77.84
Iron (Fe)	6.30
Vitamins (mg)	
Thiamin / Vit. B1	0.03
Riboflavin/Vit. B2	0.14
Niacin	0.87

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

Indoor, ventilated, dry environment (temperature of 18°C)

## USOS

Amaranth is mixed with that of wheat in a proportion of 80:20 in order to obtain bread has a unique flavor and texture that adds greatly to variety breads, pancakes, cookie mixes, breakfast cereals, ethnic dishes, health foods, stuffing, pilafs, soups, snacks, and other baked products. Amaranth flour is a natural additive, which gives food a distinctive flavor while enhancing the nutritional content.

## PRESENTATION

Multiwall paper bags of 10 Kg and 20Kg net weight.

## CUSTOMS TARIFF

1102 90 00 00

## CERTIFIER BODY

Control Union Certifications

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve