

# PRODUCT SPECIFICATION

## Product

## ORGANIC QUINOA

Scientific Name: *Chenopodium quinoa* Willdenow

Family: Chenopodiaceae

Synonym:

- Quechua: kiuna, quinua, parca
- Aymara: supha, jopa, jupha, jura, aara, ccallapi, vocali
- Chibcha: suba, pasca
- Spanish: quínuva, quínoa, quinquá, kinoa, trigrillo, trigo inca, arrocillo,
- Portuguese: arroz miúdo do Perú, espinafre do Perú, quinoa
- English: quinoa, kinoa, sweet quinoa, white quinoa, Inca rice
- French: ansérine quinoa, riz de Pérou, petit riz de Pérou, quinoa
- Italy: quinua, chinua
- German: Reisspinat, peruanischer Reisspinat, Reismelde, Reis-Gerwacks



### ORIGIN

Quinoa, a traditional Andean crop, began its domestication process 5000 years BC, in Ayacucho, Peru. It is mainly found around the Titicaca Lake region (Peru/Bolivia). This crop has been able to adapt to a wide range of climatic conditions and was widely used by pre Hispanic cultures as an important nutritional component, before being replaced by cereals brought by the Spaniards.

### DESCRIPTION

The Quinoa grain has a small round shape, semi flattened of yellowish white colour. This plant is rich in protein, carbohydrates and it has an excellent balance of amino acids, essential for the development of tissues in the human body. It is cultivated in the Andean region, mainly in the highlands of Peru.

Quinoa is considered one of best Andean grains due to his nutritional value, it contains the greatest combination of amino acids. The concentration of lysine in quinoa is almost twice in comparison with other cereals and grasses. It contains no cholesterol.




### SPECIFICATIONS

Physical Characteristics			
PROPERTIES	WHITE	RED	BLACK
Variety Name	Blanca/Rosada Junin Blanca July, Sajama	Pasancalla	Ccoico
Inflorescence Color	Red/Pink/Green	Red	Black
Apperance	Small Round Flattened Grains		
Grains Colour	Creamy	Red	Black
Taste	Sweet / bitter	Bitter	Bitter
Odour	Characteristic of Product		
Humidity	13.5% Max		
Saponine	Absence	< 0.01 %	< 0.01 %

## MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter				
PARAMETER	UNIT	WHITE	RED	BLACK
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.		1,000 max	
Mold	ufc /g.		10,000 max	

## GENERAL ASPECTS

Maximum Allowed Parameter			
SPECIFICATION	WHITE	RED	BLACK
Imagen			
Contrasting varieties	< 0.01 %	< 0.05 %	< 0.1 %
Size	1.4 mm (40%) – 1.6 mm (60%)		
Atypical grains	< 0.5 %		
Foreign matter	< 0.01%		

## NUTRITIONAL VALUE

Composition in 100 gr. of eatable portion			
MAIN COMPONENTS	WHITE	RED	BLACK
Energy (Kcal.)	370	380	409
Water	10.1	10.1	10.1
Protein	14.4	15.5	16.4
Fat	5.2	7.4	7.8
Carbohydrates	67.8	62.5	68.4
Dietary Fiber	6.5	3.2	2.9
Ash	3.5	2.7	2.7
Minerals (mg)			
Calcium (Ca)	120	125	122
Phosphorus (P)	220	210	200
Iron (Fe)	5.0	5.6	6.2
Vitamins (mg)			
Retinol / Vit A	-	-	-
Thiamin / Vitamin B1	0.13	0.15	0.13
Riboflavin / Vitamin B2	0.38	0.35	0.38
Niacin	1.1	1.3	1.3
Vitamin C	-	-	-

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

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

## USES

It is used for human consumption, the quinoa grain can be prepared in many varieties such as soups, puddings, stews, torrijas, desserts, bread and drinks, flakes, flour, puffed.

Due to its nutritional value is in the ideal diet for infants, students, athletes, convalescents and seniors.

## **PRESENTATION**

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

## **CUSTOMS TARIFF**

1008 90 10 90

## **CERTIFIER BODY**

Control Union Certifications

## **CERTIFICATES**

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve

# PRODUCT SPECIFICATION

## Product

## QUINOA FLAKES



Product of easy cooking and versatility, quinoa flakes are obtained from grains of quinoa scarified, in form of pellets abrasive color and pleasant taste with highly nutritious properties forms flattening. It is required for its consumption of a complete cooking process

Gluten free and organic. Quinoa is particularly high in fiber and in non saturated fats; and it is an important source of calcium, iron, phosphorus, vitamin E and part of the B complex. The well-balanced mix of amino acids makes it comparable to milk's nutritional value.

### PROCESS

The grains of quinoa before washed and dried are selected by size and taken to a stage of conditioning in humidity, then they are laminated by means of two rollers of draft convergent and passed to a stage of dried for your stabilization. Finally they are pocketed, stored and completed for its marketing

### DESCRIPTION

The small pellets of quinoa are circular or oval sheets of the cereal of white color or cream, whose thickness variability among 0.1mm. to 0.4mm. These have a contexture and appearance similar to the small leaves of oats (Quaker) being it's principal substitute

### SPECIFICATIONS

Physical Characteristic	
Appearance	Circular or Oval Pellets
Color	White to Cream
Flavor	Characteristic
Odour	Characteristic
Humidity	9.0 % max
Saponine	Absence

### MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter		
Mesophilic Bacteria	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	3mm. Ø – 5mm. Ø
Thickness	0.2mm. – 0.4 mm.
Strange material	Absence

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion	
Energy (Kcal.)	385.29
Protein	36.36
Fat	18.18
Carbohydrates	209.10
Dietary Fiber	18.18
Minerals (mg)	
Calcium (Ca)	236.00
Phosphorus (P)	453.00
Iron (Fe)	7.50
Vitamins (mg)	
Tiamina / Vitamina B1	0.30
Riboflavina/Vitamina B2	0.01
Niacin	0.40

## LIFETIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

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

## USES

Quinoa flakes require cooking. Yet for those who love quick cereal, cooking time is blissfully shorted, about 90 seconds. Resembling rolled oats when uncooked, cooked quinoa flakes tend to look like wheat cereal or some compare them to grits. A hot bowl of quinoa flakes will add great nutrition to your morning breakfast, with no cholesterol, no sodium, no gluten, and about 10% of your daily requirement for dietary fiber.

## 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 QUINOA



Quinoa is an ideal grain substitute for those with multiple grain allergy or gluten allergy as it is far more nutritious than rice and is easy to digest.

Quinoa is an excellent essential amino acid profile and contains a heap of iron, calcium, magnesium and other minerals. Puffed quinoa makes a great breakfast cereal alone or mixed with amaranth. It is also a great addition to muesli mixes, cookies and slices to add texture and a bit of extra nutrition.

### PROCESS

In order to obtain puffed quinoa, first the product is exposed to high temperature and pressure and finally to a intense decompression. This process “expansion by explosion” originates the increase of the volume to 5 or 6 times more than the original size.

### DESCRIPTION

Puffed quinoa is delicious and has a surprising texture, it's similar to puffed corn, sweetened and served with milk (like cornflakes). This type can also be crushed and sprinkled as a sweet, crunchy topping on cakes and ice cream.

### SPECIFICATIONS

Physical Characteristics	
Appearance	Porous and roasted grain
Color	Beige to Cream
Flavor	Characteristics
Odour	Aromatic
Humidity	7.0 %
Saponine	Abscense

### MICROBIOLOGICAL CHARACTERISTICS

Maximum Allowed Parameter		
Mesophilic Bacteria	ufc /g.	10 <sup>4</sup> max
Coliformes	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)	3.00 mm. – 4.00 mm.
Strange Material	Abscense

## NUTRITIONAL VALUE

Composition Average in 100 gr. of portion eatable	
Energy (Kcal.)	390.00
Proteins	11.70
Fat	5.70
Carbohydrates	72.0
Dietary Fiber	8.90
Minerals (mg)	
Calcium (Ca)	85.00
Phosphorus (P)	418.00
Magnesium (Mg)	204.00
Iron (Fe)	2.60
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

Human consumption does not require cooking process. Use directly on Yogurt, frit salads, juices, puffed amaranth can be sweetened

## PRESENTATION

Multiwall paper bags of 4 Kg net weight.

## CUSTOMS TARIFF

1904 10 00 00

## CERTIFIER BODY

Control Union Perú

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve

# PRODUCT SPECIFICATION

## Product

## QUINOA FLOUR



Quinoa has an almost ideal balance of amino acids, vitamins and minerals. It is probably the least allergenic grain. Quinoa flour makes baked goods moister.

This grain also has the best complete protein profile than other grains, it contains 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

Quinoa is a small round seed of white/ivory color; it comes from the family of the Chenopodiáceas (such as the beet or the spinach). The grain is washed after crop to extract the saponine, then dried it is off, ventilated and classified. Then it comes the grinding and calibrating, guaranteeing a homogeneous quality and the conservation of all nutritional characteristics.

### DESCRIPTION

It has 3 presentation forms: **Raw Flour Quinoa** that has major use in baking, noodle, biscuits and confectionary **Roasted Flour Quinoa** with a major use in confectionary and **Instantaneous Flour Quinoa**, that is pre-cooked easily dispersed in liquids, and it is used mainly as nourishing supplement with cocoa in milkshakes.

### SPECIFICATIONS

Physical Characteristic	
Appearance	Fine Powder
Color	White, Beig
Flavor	Characteristic (Free Sourness)
Odour	Characteristic (Free Sourness)
Humidity	11.0 %
Saponine	Absence

### MICROBIOLOGICAL CHARACTERISTICS

Maximun Allowed Parameter			
PARAMETER	UNID	INTEGRAL	DISGERMINATED
Mesophilic Bacteria	ufc /g.	3 x 10 <sup>5</sup> max	
Coliforms	NMP /g.	3 max	
E-Coli	NMP /g.	3 max	
Salmonella	in 25 g	Ausencia	
Yeast	ufc /g.	5,000 max	
Mold	ufc /g.	5,000 max	



## GENERAL ASPECTS

Maximum Allowed Parameter		
PARAMETER	INTEGRAL	DISGERMINATED
Size Grain	500 $\mu$ – 700 $\mu$	200 $\mu$ – 500 $\mu$
Strange Material	Absence	

1  $\mu$  = 0.001 mm

## NUTRITIONAL VALUE

Composition Average in 100 gr. of eatable portion		
COMPONENT	INTEGRAL	DISGERMINATED
Energy (Kcal.)	384	348
Protein	10.00	9.10
Fat	5.30	2.60
Carbohydrates	72.70	72.10
Dietary Fiber	1.70	1.00
Minerals (mg)		
Calcium (Ca)	236.00	181.00
Phosphorus (P)	80.00	61.00
Iron (Fe)	7.50	3.70
Vitamins (mg)		
Thiamin / Vit. B1	0.30	0.19
Riboflavin/Vit. B2	0.01	0.24
Niacin	0.40	0.70

## LIFE TIME

Approximately 12 months in dry, cool and dark storage

## STORAGE CONDITIONS

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

## USES

Quinoa flour can be used in wheat-based and gluten-free baking. Also, it can be combined with sorghum flour, tapioca, and potato starch to create a nutritious gluten-free baking mix. A suggested mix is three parts quinoa flour, three parts sorghum flour, two parts potato starch, and one part tapioca starch. Quinoa flour can be used as a filling for chocolate.

## PRESENTATION

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

## CUSTOM TARIFF

1102 10 00 00

## CERTIFIER BODY

Control Union Perú

## CERTIFICATES

National Organic Program (NOP)

Europe Union (EU)

Japan Agriculture Standard (JAS)

Kosher - Parve