

Ministerio de Agroindustria
Secretaría de Agregado de Valor
Subsecretaría de Alimentos y Bebidas

QUALITY PROTOCOL



Code: SAA003

Version: 07

18.08.2006

At the head note the version in English is: Ministry of Agroindustry. Secretariat of Value-added. Undersecretariat for Food and Drink Production.

There is a logotype: "Argentine Food – A Natural Choice". -----

QUALITY PROTOCOL FOR SQUASH *Cucurbita moschata* Duch *Waltham Butternut* type
(hereinafter squash)


Date of making it official: April 10th, 2006 – SAGPyA Resolution N° 146 -----

Institutions and companies participating in the drawing up and evaluation of this protocol -----

- National Food Administration –(Dirección Nacional de Alimentos) (according to its initials in Spanish = SAGPyA) -----

Date of making it official: September 29th, 2006 – SAGPyA


Resolution N° 798/2006.-----

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INSTITUTIONS PARTICIPATING IN THE DRAWING UP OF THIS PROTOCOL -----

- DIRECCIÓN NACIONAL DE ALIMENTOS- SAGPYA (NATIONAL FOOD ADMINISTRATION) -

- INTA LA CONSULTA DE MENDOZA -----
- EMPRESA ICEBERG S.A. (ICEBERG COMPANY)-----
- CORPORACIÓN DEL MERCADO CENTRAL DE BUENOS AIRES (BUENOS AIRES -----
CENTRAL MARKET ASSOCIATION) -----

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INTRODUCTION

1. Scope

This protocol defines and describes the quality attributes of squash *Cucurbita. moschata* Duch Waltham Butternut type (hereinafter called *squash*) that want to use the Seal “Argentine Food” – A Natural Choice”. -----

The purpose of this document is to provide Argentinian *squash* manufacturers a tool for obtaining products of a special quality.-----

The products having the ambition to apply this protocol should take into account that the fulfillment of these regulations in force is implicit, being the definitions mentioned in the Argentinian Food Code (Código Alimentario Argentino) (Chapter XI – section 822).-----

1. General criteria -----

The differentiating attributes for *squash* come from the information collected and resulting from the investigation coming from the different private institutions and companies, in order to obtain the Seal “Argentine Food – A Natural Choice”.-----

The companies exporting *squash* incorporate product attributes pursuant to the requirements of each buying market. Despite the variety of demands it has been possible to unify the criteria in one protocol capable of including the requirements that define the maximum possible quality of this product. -----

The written protocol may be used either for its sale in the foreign or the domestic market.-----

3. Foundation of differentiating attributes -----


Product attributes -----

The attributes for this product are based on the technical knowledge related to the field, the manufacturing companies and the demands of Argentinian destiny markets. -----

As regards the special references connected to physical, chemical and biological parameters, they have been obtained from maximum ranges and tolerances according to attributes. -----

Package Attributes -----

No package attributes will be mentioned for this product unless its commercialization will be done in bulk. The rules in force for packages in general will be taken as a basis. In this case, the seal shall be stamped on the product. -----

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Process attributes -----

Quality attributes are defined as the fulfillment of Agricultural Good Practice (AGP) and Good Manufacturing Practice (GMP) applying those systems as it corresponds, from the product farming to its commercialization. -----

The mentioned attributes are mainly based on the international customers' demands and respond to the concrete requirements of the demand. -----

On the other side, the conditioning, storage and transport characteristics were considered so that they can guarantee their operation as regards the shelf life of the product. -----

PRODUCT DIFFERENTIATING ATTRIBUTES -----

1- Quality Attributes -----


1.1- Cultivation -----

The product is designed according to its name, gender, species and cultivation. In this case for ***Cucurbita moschata* Duch, Waltham Butternut type**. -----

1.2- Attributes Quality -----

Fruit characteristics to consider: -----

- Ripening and uniform color -----
- Firm pulp up to compression -----
- Well developed -----
- Firm consistency -----
- Characteristic shape, colour, taste and/or odour of the variety -----
- Well coloured -----
- Fresh -----
- Whole -----
- Clean -----
- Healthy -----
- Free of damages caused by plagues, alive insects and diseases -----
- Free of any odor, taste and foreign material (powder, chemical residues, etc.) -----
- Free of malformations -----
- Check if they correspond to the type and cultivate -----
- Of uniform size -----

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- Free of putrefaction, colorings and alive insects. -----

1.3- Ripeness -----

The *squash* should have a degree of ripeness so that it can bear the transportation and handling apart from responding to the market requirements in the place of destination. -----

The fruits should be harvested in the appropriate state of ripeness that is determined by using several parameters, as the following: -----

Cycle performance (as regards variety and temperature). -----

Skin color: creamy ocher -----

1.4- Color -----

The fruit shall present a creamy ocher skin and a yellow or orange pulp. -----

1.5- Quality standards -----

Apart from fulfilling the above mentioned quality minimum requirements, the *squash* should be typical of its variety, development and coloration. The *squash* should fulfill the specified standards in order to be of a higher quality as follows (items a-h): -----

a- Size specifications -----


The size of the *squash* is basically determined by its weight that is the reason why It shall be classified into four calipers. -----

- **S:** 600 gr- 800 g. -----
- **M:** 800 gr- 1200 g. -----
- **L:** 1200 gr- 1500 g. -----
- **XL:** >1500 g. -----

b- Desiccation traits -----

- 0%: That will be the tolerance admitted for desiccation traits. No similar traits shall be admitted in the harvested product. -----

c- Viral diseases -----

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- 0%: That will be the tolerance admitted for viral diseases that are observed in the product.-----

d- Mechanical damage -----

- 5%: Maximum limit of mechanical damage acceptance in the surface of the fruit, the lesions shall not involve the shelf life of the product. -----

e- Damage caused by rotting-----

- 0%: That will be the tolerance admitted for evidenced fruit rotting. -----

f- Damage caused by removing branches and leaves (scraping)-----

- 5%: The maximum limit of scraping -----

f- Damage caused by sun spots -----

- 5%: That will be the tolerance admitted for spots that are produced by the sun on the surface of the product. The spots shall not involve the shelf life of the product. (without involving its biological stability). -----

g- Size and uniformity -----

Size tolerance: it is considered that between the biggest and the smallest size of the same package, there shall be able to be a difference of up to a 10% in size. -----


Weight tolerance: Don't exceed the 10% of the package net weight. -----

PROCESS DIFFERENTIATING ATTRIBUTES -----

Management systems -----

The producers of *squash* having the ambition to use the Seal “Argentine Food – A Natural Choice” should fulfill the process under the system of Agricultural Good Practice¹ from the cultivation to its commercialization. -----

Conditioning characteristics -----

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Brushing: The objective of this process is to eliminate any foreign substance adhered to the surface of the fruit. -----

The use of any substance (for example: lime and sulfur) on the surface of the *squash* to prevent diseases and preservation is forbidden. -----

Shelf life: The time elapsed from the harvest to the product commercialization of the product should be specified according to the destiny market, in order to assure that the characteristics of this product will be fulfilled based on this protocol. -----

That is the reason why *squash* will have the benefit of the seal on the market: -----

- Domestic it shall not be stored for a period longer than 4 months. -----
- Foreign it shall not be stored for a period longer than 45 days. -----

Transport and Storage Characteristics -----


- **Relative Humidity (RH%):** 50-70 -----
- **Temperature(°C):** 10-12 -----

Storage: The warehouse should be exclusive for the storage of the final product, closed and free of contaminants. -----

¹Reference: SAGPyA Resolution SAGPyA N° 71/99, EUREGAP Rules, among others. -----

PACKAGE DIFFERENTIATING ATTRIBUTES -----

The content of each package should be uniform as regards the product caliper, coloration and characteristics, and the package should only contain *squash* of the same origin, variety and quality. -----

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- Package characteristics -----

The packages used for the packing should be free of foreign materials and odors and should satisfy the quality, sanitation, ventilation and resistance characteristics required for assuring the appropriate handling and distribution, while keeping their original properties. -----

The logotype of the seal will be on the product for the *squash* that are commercialized in bulk. -----

It should be underlined that the use of wood boxes are not allowed for product transportation. -----

In case the product is commercialized in bags or cardboard boxes the seal will be able to be stamped on this primary package. -----


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Exhibit: Glossary -----

Good color: it is the typical coloration that vegetables have according to the species, cultivate, production area. -----

Good shape: it is the product that presents the characteristic shape of the species or cultivate being possible to offer small deviations due to unequal growth of the species. -----

Decolorations: those that are partial or total typical color deviations of cultivation and that modify the general appearance of the pumpkin -----

Diseases and internal alterations: diseases of different type that produce disorders such as medulla structural changes. -----

Complete: products that are neither divided nor separated, broken, broken into pieces. -----

Primary package: it is defined in C.A.A. as the package that is in direct contact with the product that is inside. -----

Firm: turgid and flabby. -----

Alive insects: in any stage of development. -----


Lesions: units that show dry or healed excoriations, whatever the origin will be, in a grade that decrease its possibility of commercialization. -----

Clean: when it is free of land, mud or chemical residues used for the treatment of plants, the corresponding packages also show this condition. -----

Ripe: a vegetable is considered ripe when during its growth it reached the taste and characteristics that make it eatable, known as commercial ripeness that may or may not coincide with its physiological ripeness. -----

Spots: alterations of the normal coloration of the species as dry or healed excoriations whatever the origin will be. -----

Odor and foreign taste: different from normal or common species; these may be caused by the use of use of chemical substances in the cultivation (pesticides, herbicides, fertilizers, etc) or when using packages that were previously used for other products. -----

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Rotting: all damage produced by organisms that imply any grade of decomposition, disintegration or tissue fermentation. -----

Scraping: Superficial lesion caused by rubbing the fruit against plant structures that produce epidermis suberization. -----

Check if they correspond to the type cultivate: it refers to the group of plants that has suffered modifications done by the man, thus getting differential and homogenous characters and that may be reproduced by seed or by agamic route. -----


Healthy: it means that the pumpkin does not have diseases caused by parasites nor decomposition that avoid or limit the use of the product. -----

Dry: -----
The squashes should be free of water or humidity excess in the surface of the unit. -----

Uniform size: the uniformity in the lot will be given up to 30% of the size difference between the biggest or smallest unit. -----

Tolerance: maximum and minimum percentages allowed per unit (fruit).-----

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Ministerio de Agroindustria Secretaría de Agregado de Valor Subsecretaría de Alimentos y Bebidas	AUDIT APPROVAL	
Code: SAA104	Version: 01	02.08.06

At the head note the version in English is: Ministry of Agroindustry. Secretariat of Value- added. Undersecretariat for Food and Drink Production.

There is a logotype that reads: Argentine food. A natural choice. -----

Audit date:

Auditing company:

Audited company:

Location site:

Headquarters:

Locality:

Telephones:


Name of the person responsible for quality at the company/position

Product: Squash *C. moschata* Duch Waltham Butternut type (hereinafter called squash)

Reference code protocol: SAA003


RESULTS

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Auditor's signature	Clarification	

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Code: SAA104	Version: 01	02.08.06


Attributes	Compliance		Remarks
	YES	NO	
1. Of the product Squash <i>Cucurbita moschata</i> Duch, cultivation Waltham Butternut type or similar			
a. Maturity - Development of the cycle (as regards variety and temperature). - Skin color: creamy ocher			
b. Color: creamy ocher and yellow or orange pulp			
c. Size: fulfill the calipers mentioned in this protocol.			
d. Dessication traits: none.			
e. Viral diseases: none.			
f. Mechanical damage: not greater than 5% of the surface of the squash <i>Cucurbita moschata</i> Duch, cultivation Waltham Butternut type or similar			
g. Damage caused by rotting: none			

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Auditor's signature	Clarification	

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Attributes	Compliance		Remarks
	YES	NO	
h. Damage caused by scraping: not greater than 5% of the product surface			
i. Sun spots damage: not greater than 5% of the surface of the product. The spots shall not involve the shelf life of the product			
2. Of the Process			
A) Quality management system Fulfillment of Agricultural Good Practice in farms and Good Manufacturing Practice for packing.			
a. Control and records of water quality for farming.			
b. Inspection of the records on the application of registered agrochemical products			
a. Inspect the facilities available for personnel sanitation.			
b. Inspection of the records of POES applied to packing			

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Attributes	Compliance		Remarks
	YES	NO	
b) Conditioning			
Performance of brushing			
Do not use substances on the surface of the fruit to prevent diseases or store..			
Storage: exclusive warehouse for the storage of the final product, free of plagues and contaminants.			
c. Of the package			
Size and uniformity - Size tolerance: there will be able to be a difference of up to 10% in size between the biggest and the smallest unit.			
Weight tolerance: it will not exceed the 10 % of the specified weight determined as package net weight..			
Characteristics: - Free of foreign materials and odors - clean			

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Attributes	Compliance		Remarks
	YES	NO	
- ventilated - resistant (to assure the appropriate handling and distribution for the product).			

Conclusions

People interviewed by the audited company:

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On behalf of the auditing company

Upon approval of the audited company

Signature, name and seal

Signatura and name

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