

Table Olives

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Summary of World Olive Data

Raw Olive Production -15.3 Million Tonnes

Table Olive Production - 2 Million Tonnes

Olive Oil (Not all extra virgin) – 2.8 Million Tonnes

Summary of Australian Olive Data

Raw Olive Production - 63 Thousand Tonnes

Table Olive Production – 3.2 Thousand Tonnes

Olive Oil (High% extra virgin) – 11.3 Thousand Tonnes

Summary of World Table Olive Data



Producer	Consumer	Exporter	
Spain	Egypt	Spain	USA
Egypt	USA	Argentina	Brazil
Turkey	Turkey	Egypt	Russia
Syria	Spain	Morocco	France
Greece	Italy	Turkey	Canada
Argentina	Syria	Greece	Saudi Arabia
Algeria	Algeria	Syria	Romania
Morocco	Russia	Peru	Australia
USA	Brazil	Portugal	Bulgaria
Italy	France	Jordan	Germany

Australian Producer = 20th Consumption = 0.9Kg/person

Proposed Australian Table Olive Code of Practice

Application

National purposes – production/wholesaling/retailing table olives

- International purposes – importing/exporting table olives

Available Documents

- IOC Trade Standard Applying to Table Olives COI/OT/NC no.1 Dec 2004: Sensory analysis of Table Olives; Quality Management Guide for the table olive industry 2005.
- Federation of French Condiments Industries - Code of fair practice for table olives Dec 2000
- Codex Alimentarius (several relevant documents)
- FSANZ Food Code & Ready to Eat Foods
- Freshcare
- AOA Code of Practice for Olive Oil

Broad Process – Safety and Quality

- **Producing quality olives**
 - **Good horticultural practice (eg SQF, HAACP, Freshcare)**
 - **Harmonise with AOA Olive Oil Code of Practice**
 - **Chemical diary (Voluntary)**
 - **Olives meet chemical residue limits (FSANZ, Codex)**
- **Primary table olive processing**
 - **Good manufacturing practice (FSANZ, Codex, IOC)**
- **Secondary processing of table olives**
 - **Good manufacturing practice (FSANZ, Codex, IOC)**
- **Packaging and storage of table olive products**
 - **Good manufacturing practice (FSANZ, Codex, IOC, French code)**

IOC Quality Management Guide

A woman wearing a white hairnet, a blue and white striped shirt, and a green and white striped apron is working in a kitchen. She is wearing white gloves and is handling a stack of white plastic containers filled with olives. The kitchen has stainless steel countertops and a sink. There are several other stacks of similar containers on the counter. In the background, there are shelves with various bottles and a window.

Input delivery - Raw olives, Additives, Processing Aids, Ingredients, other

Storage - Raw olives and other inputs

Sorting and size grading

Treatments-Rinsing, Alkaline treatments, Fermentation Oxidation, Drying

Bulk storage

Secondary processing - Marinades, Destoning, Stuffing Pastes & Tapenade

Consumer packaging - IOC docs, Pasteurise, Hot pack

Processing/Packaging Table Olive

Covers suitably treated/processed fruit from the cultivated olive tree *Olea europaea* L., offered for trade and for final consumption as table olives.

Treatment/Processing Methods

Olive fruit is treated to remove bitterness and preserved by natural fermentation, or by heat treatment, with or without the addition of preservatives. (also other methods)

Types of Olives – Variety, Ripeness - Green, TC, Black

Trade preparations - Natural, dehydrated, treated (lye), olives darkened by oxidation (Californian Ripe Process), specialty products made from olives.

Olive sizing - directed to exportation

Packing brines

- **Clean**
- **Free from unauthorised foreign matter**
- **meet hygiene standards**

Ingredients

- **Potable water**
- **Food grade ingredients - salt, vinegar, oils including EVO, sugars, stuffings, herbs, spices, natural extracts**
- **FSANZ approved additives**

Olives

- **Characteristic taste, smell, colour and texture of product and**
- **Meet hygiene standards**

Testing Table Olives (IOC)

Physical tests – colour, defects, texture

Chemical tests – pH, Salt, Acid as % Lactic Acid

Microbiological tests – bacteria, yeasts, moulds

Sensory Analysis

- **Negative** - Abnormal fermentation, Musty, Rancid, Cooking-effect, metallic, Earthy, Winey-Vinegary, Soapy,
- Gustatory - Salty, Bitter, Acid
- Texture – Hardness, Fibrousness, Crunchiness

Natural Olives (Fermented, Soaking - water/brine)

Packing Brine or juice after osmotic balance

	Minimum	Maximum	Minimum
	% Salt	pH	Lactic Acid
			Activity %LA
• Specific Chemical Characteristics or Modified Atmosphere	6	4.3	0.3
• With Preservatives or Refrigeration (0- 4°C)	6	4.3	0.3
• Pasteurisation or Sterilisation	GMP	4.3	GMP

Dehydrated/Shrivelled Olives (salt, heat) Packing Brine or juice after osmotic balance

	Minimum	Maximum	Minimum
	Salt	pH	Lactic Acid activity % LA
• Specific Chemical Characteristics or Modified Atmosphere	10	GMP	GMP
• With Preservatives or Refrigeration (0-4°C)	10	GMP	GMP
• Pasteurisation or Sterilisation	GMP	GMP	GMP

Treated Olives (Spanish Style Green)

Packing Brine or juice after osmotic balance

	Minimum	Maximum	Minimum
	Salt	pH	Lactic Acid
	%		activity %LA
• Specific Chemical Characteristics or Modified Atmosphere	5	4.0	0.5
• With Preservatives or Refrigeration (0- 4°C)	4	4.0	0.4
• Pasteurisation or Sterilisation	GMP	4.3	GMP

Quality Criteria for Table Olives

- **Qualitative Classification (for exportation) - related to level of defective olives**
 - **Extra or fancy**
 - **First, 1st, Choice, Select**
 - **Second, 2nd, Standard**
- **Defects - harmless extraneous material eg leaves, blemished skin, mutilated/broken/shrivelled fruit, abnormal texture, abnormal, colour, defective stuffing, stones**

Food Additives and Processing Aids

Contaminant limits

Premises and Hygiene Implications

FSANZ/Codex Alimentarius packaging, labelling requirements

Microbiological Criteria for Olives in Drums (various types) French Standard

Organism	Comment
Salmonella	Pathogenic Desirable? FSANZ
Staph coagulase +ve	Pathogenic human contamination
E. coli	Faecal contamination
Faecal coliforms	
Aerobic Mesophils	Pilot testing
Lactic Acid Bacteria	up to 10^9 CFU/ml brine or g flesh
Yeasts	up to 10^9 CFU/ml brine or g flesh
Moulds	
Sulphite-Reducing	
Anaerobes	
Clostridium perfringens	Botulinum indicator
Listeria monocytogenes	

Microbiological Criteria for Olives Intended for Sale to the Public (French Standard)

Products Given Thermal Treatment

IOC - Salt/pH/Acid need to be met

- Following pasteurisation + 7days at 37°C (stabilise)
- test for Lactobacillus in fermented products
- Following adding hot brine to processed olives?

Products Not Given Thermal Treatment

IOC - Salt/pH/Acid need to be met

Compulsory - Salmonellas?, Staph coagulase +ve, E.coli, Listeria monocytogenes?

Indicative - aerobic microorganisms 30°C, yeasts, moulds, Lactobacillus?

Thank You