

PART 2

ORANGES AND SEVILLE ORANGES

15. The standards and requirements for oranges and Seville oranges, excluding oranges and Seville oranges "For Processing Purposes Only", are as follows:

Definitions

(1) Where specifically used with regard to oranges and Seville oranges --

"oranges" means the fruit of the cultivars which are grown from the species *Citrus sinensis* (L.) Osbeck; and

"Seville oranges" means the fruit of the cultivars which are grown from the species *Citrus aurantium* (L.).

QUALITY AND FOOD SAFETY STANDARDS

Classes

(2) There are three classes of oranges and Seville oranges, namely "Extra Class", "Class 1" and "Class 2".

Specifications

- (3)
- (a) The classes mentioned in subitem (2) shall comply with the quality and food safety standards set out in Table 1 of Annexure E.
 - (b) The number of scale per fruit shall not exceed the applicable limits set out in Table 3 of Annexure E.
 - (c) The number of mature seeds per fruit shall not exceed the applicable limits set out in Table 4 of Annexure E.
 - (d) The oranges and Seville oranges shall comply with the diameter requirements set out in Table 5 of Annexure E: Provided that no oranges or Seville oranges shall be smaller than 53 mm in diameter.

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- (e) The oranges and Seville oranges shall comply with the following requirements:

Variety/Cultivar/Type	Minimum content for:			
	Juice	Sugar:Acid Ratio	Brix	Acid
Alpha Seedless Gusocora Seedless, Delta Seedless and Midknights	48%	7,5:1	9,5°B	0,7
Valencias	42%	7,0:1	8,5°B	0,6
Navels	45%	7,0:1	8,5°B	0,65
Late Navels	45%	7,0:1	9,0°B	0,65
Navelates	42%	8,0:1	10,0°B	0,65
All other cultivars not listed above	42%	7,0:1	8,5°B	0,6

- (f) In the case of Valencias deviation from the minimum sugar:acid ratio is allowed on the following sliding scale:

Minimum °Brix	Minimum °Brix:Acid ratio
8,5	7,0:1
9,0	6,9:1
9,5	6,8:1
10,0	6,7:1

- (g) In the case of Navels deviation from the minimum:

- (i) juice content specification relative to the minimum °Brix content is allowed on a sliding scale as follows:

Minimum juice content	°Brix
45	8,5
44	9,0
43	9,5
42	10

- (ii) °Brix specification is allowed on the following sliding scale:

Minimum °Brix	Acid
8,5	0,65
10,0	0,60

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- (h) If cartons are marked Alpha Seedless, Gusocora Seedless, Delta Seedless or Midknights, but do not comply with the minimum standards for Alpha Seedless, Gusocora Seedless, Delta Seedless or Midknights, the cartons must be re-marked as Valencias: Provided that the fruit comply with the minimum standards for Valencias.
- (i) If individual fruits are labelled as Alpha Seedless, Gusocora Seedless, Delta Seedless or Midknights, but do not comply with the minimum standards for Alpha Seedless, Gusocora Seedless, Delta Seedless or Midknights but still comply with the minimum standards for Valencias, the fruit may be considered for export on a once-off dispensation basis per pack house.

Unspecified defects

- (4) For the purpose of this subitem "unspecified defects" means any quality factor which detrimentally affects the quality of the oranges or Seville oranges and which is not mentioned in Table 1 or Table 2 of Annexure E.



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ANNEXURE E

TABLE 1
QUALITY AND FOOD SAFETY STANDARDS

Quality factor	Extra Class	Class 1 and Class 2
1	2	3
1. (a) Underdeveloped or out of season	Shall not occur	Shall not occur
(b) Overmaturity (too soft/open core)	Shall not occur	As depicted in Annexure H
(c) Internal quality requirements	As set out in subitem (3)(e)	As set out in subitem (3)(e)
(d) Seeds per fruit	As set out in Table 4	As set out in Table 4
2. External blemishes	Shall not occur	As depicted in Annexure H
3. Colour	As depicted in Annexure H	As depicted in Annexure H
4. Foreign matter	As determined by the Executive Officer	As determined by the Executive Officer
5. Frost damage, granulation and drying out	As set out in item 5 of Table 2	As set out in item 5 of Table 2

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TABLE 2
MAXIMUM PERMISSIBLE DEVIATIONS BY NUMBER

Quality factor	Extra Class	Class 1 and Class 2
1	2	3
1. Decay	Shall not occur	1,5%: Provided that not more than one container or 10% of the containers in a sample, whichever is the greatest, contain more than 5% of such fruit per container: Provided further that no Sour rot or Brown rot are allowed.
2. Factors which may cause decay		
(a) (i) Major injuries	0%	(a) First inspection: 1%
(ii) Water saturation	0%	(b) Second/fruit age inspection: 2%
(b) Minor injuries	2%	2%
(c) Skin weakness	2%	4%
(d) Deviations specified in paragraphs (a), (b) and (c) above and item 1 of this table collectively: Provided that such deviations shall individually be within the specified limits	2%	5%



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3. Greening disease	0%	2,5%
4. Superficial black fungus growth on scale residues	0%	2,5%
5. Frost damage, granulation and drying out		
(a) (i) Major granulation in all cultivars, excluding Navels: Provided that if any consignment exceeds 2% major granulation, a higher internal quality shall apply by increasing the minimum TSS by 0,5%	0%	(i) 2% if major and minor granulation combined exceed 25% (ii) 5% if major and minor granulation combined do not exceed 25%
(ii) Navels	0%	2% if major and minor granulation combined do not exceed 20%:
(b) (i) All cultivars, excluding Navels - Minor frost damage, minor granulation and drying out: Provided that no major granulation is present	Permissible	Permissible
(ii) Navels	10%	50%
6. Arthropoda infestation		
Occurrence of scale: No fruit shall contain more than twice the permitted number of scale per fruit with the exception of a tolerance of two fruit per consignment or 0,4% of the fruit examined,	5%	10%

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whichever is the greater: Provided that the percentage of fruit with scale in excess of the number permitted per fruit, for the diameter concerned, does not exceed 2%		
7. (a) Blemishes, dirty fruit, wilt, shrivelling, skin defects (skinburn, sunburn with drying out of flavedo and albedo, rough, coarse, thick, ribbed or ridged, creasing, other types of skin damage excluding injuries), malformation (including excessively protruding navels), bruises resulting in a soft flesh structure, underdeveloped or out of season, over-ripeness, hailmarks and foreign matter	5%	10%
(b) Oleocellosis and progressive defects including but not limited to stem end browning, rind pitting, rind breakdown and anthracnose	0%	5%
8. Long stems	5%	5%
9. Absence of buttons	20%	20%
10. (a) Deviations from requirements for containers and packing requirements prescribed in items 5 and 6	5%	10%
(b) Incorrectly sealed flaps (excluding loose flaps)	5%	5%

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(c) Loose flaps	Not permissible	Not permissible
11. Minimum diameter and uniformity in size		
(a) Minimum diameter (too small)	10%	10%
(b) Lack of uniformity in size in the same container	10%	10%
12. Deviations from marking requirements as prescribed in item (8), excluding date codes	Two containers per consignment	Two containers per consignment
13. Unpunched out ventilation holes	4%	4%
14. Absence of date codes	25%	25%
15. (a) Deviations not specified in items 1 to 7 of this table collectively, that affect the exterior appearance	5%	10%
(b) Deviations specified in paragraph (a) above and items 1 to 7 of this table collectively, that influence the external appearance: Provided that such deviations shall be individually within the specified limits: Provided further that the deviation for creasing for Class 2 not be included in this collective 10%	5%	10%

NOTE:

- No specification

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TABLE 3
SIZE REFERENCES, DIAMETER REQUIREMENTS AND LIMITS FOR SCALE

Kind of fruit	Size reference	Diameter (mm)	Maximum number of scale (all types collectively) per fruit - (All classes)
Oranges and Seville oranges	0	92 - 110	10
	1	87 - 100	10
	2	84 - 96	10
	3	81 - 92	9
	4	77 - 88	9
	5	73 - 84	8
	6	70 - 80	8
	7	67 - 76	7
	8	64 - 73	7
	9	62 - 70	6
	10	60 - 68	6
	11	58 - 66	5
	12	56 - 63	5
	13	53 - 60	5



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TABLE 4
LIMITS FOR SEED CONTENT

Kind of fruit	Cultivar	Maximum average number of mature seeds per fruit in a working sample of 12 fruit
		All Classes
1. Oranges	(a) Navel selections	None
	(b) Valencia selections ¹⁾	9
	(c) Tomango	6
	(d) Shamouti	6
	(e) Midnight, Alpha, Gusocora	1 ²⁾
	(f) Delta	None: One fruit may contain a maximum of 2 seeds
	(g) Orange cultivars not mentioned above	Typical for cultivar
2. Seville oranges	All cultivars	Typical for cultivar

NOTE:

- 1) : Seedless Valencia types shall not contain more than one mature seed in a sample of twelve fruit.
- 2) : One fruit in the working sample may contain a maximum of 5 seeds: Provided that if only one fruit exceeds that number, a second working sample shall be drawn. If the second working sample has no fruit which contain more than 5 seeds, with the average not exceeding 1 seed per fruit, then the consignment may be passed.

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TABLE 5
CULTIVAR INDICATIONS ON CONTAINERS

Kind of fruit	Cultivar	Indication on container ***,*** ,
1. Navels* @		
(a) Common	Addo, Bahianinha, Bruwer Early, Dream, Fischer, Fukumoto, M7, McClean, Navelina, Newhall, Painter Early, Palmer, Santa Catarina, Sunrise, Tulegold, Washington	Navels; Cultivar followed by the word "Navels"
(b) Late	Autumn Gold, Barnfield Summer, Caloma, Cambria, Chislett Summer, Glen Ora Late, Gloudi, Lane Late, Powell Summer, Robyn, Royal Late (Rustenburg); Summer Gold; Witkrans; Suitangi	Navels; Navelates; Late Navels; Cultivar followed by the word "Navels", "Navelates", "Late Navels"
	Carninka	Navels; Navelates; Late Navels; Cultivar followed by the word "Navels" Navelates", "Late Navels Carninka Ultra Late, Dansweet
(c) Red	Cara Cara	Cara Cara; Cara Cara Navels; Red Navels; Ruby Navels
	Kirkwood Red	Kirkwood Red; Kirkwood Red Navel; Red Navel; Ruby Navels

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2. Common (Oranges) *		Rosalina	Rosalina;Rosalina Red Navel; Red Navel; Ruby Navels
	(a) Pigmented	Moro	Moro
		Sanguinelli	Sanguinelli
		Sanguinello	Sanguinello
		Tarocco	Tarocco
		Tomango	Tomango; Midseasons
		Maltaise	Maltaise, Maltaise Sanguine
		Ruby Valencia	Ruby Valencia; Red Valencia
	(b) Non-pigmented ¹	Clanor	Clanor; Protea& Midseasons
		Delicia	Delicia; Valencias; Cultivar followed by the word "Valencias"
		Delta	Delta; Delta Seedless; Valencia Seedless; Cultivar followed by the word "Valencias"
		Gusocora	Gusocora Seedless; Valencia Seedless; Cultivar followed by the word "Valencias"
		Kiyomi\$	Kiyomi; Kiyomi Orange
		Midknight	Midknight; Valencia Seedless; Cultivar followed by the word "Valencias"
		Salustiana	Salustiana; Midseasons



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Shamouti	Shamouti; Midseasons
Tomango	Tomango; Protea& Midseasons
Turkey	Turkey; Juvalle; Valencias
Limpopo Seedless	Limpopo Seedless; Valencia Seedless; Valencias; Cultivar followed by the word "Valencias"
Weipe	Weipe; Valencia Seedless; Valencias; Cultivar followed by the word "Valencias"
Beli	Beli; Valencia Seedless; Valencias; Cultivar followed by the word "Valencias"
Bennie	Bennie; Bennie Valencia; Benny; Benny Valencia; Valencias
Alpha	Alpha; Alpha Seedless; Valencia Seedless; Cultivar followed by the word "Valencias"; Valencias
Lavalle	Lavalle; Lavalle Late; Lavalle Valencia; Valencias
Louisa (Letaba Oranje)	Louisa; Louisa Seedless; Valencia Seedless; Cultivar followed by the word "Valencias"; Valencias
Amanzi, Du Roi, Henrietta, Jassie, Kleinhans, Maroc Late, Maxi, McClean, Olinda, Valencia Late;	Valencias; Valencia Late; Cultivar followed by the word "Valencias"



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	Valentine McClellan SL	McClellan Seedless; Valencia Seedless; Cultivar followed by the word "Valencias";Valencias
3. Seville oranges (Bitter/Sour Oranges)*	Bitter Seville	#Seville

NOTES:

- * Singular or plural for cultivar group will be acceptable.
- ** Indication on container using one word or two words (i.e. joined names or not joined names) will be acceptable (e.g. Autumn Gold or AutumnGold)
- *** Where appropriate, indication on carton with or without trademark symbol ™ will be acceptable.
- # Indication of a cultivar is optional.
- & The indication concerned (Protea) shall only be used if a working sample of 12 fruit on average contains 7 or more but less than 10 mature seeds per fruit
- \$ Kiyomi is a 50% Mandarin and 50% Orange Hybrid.
- @ All Navel cultivars not withstanding the above list, can be packed as "Navelates" provided they comply with the quality standards for Navelates.
- 1 The indication Valencias; Cultivar followed by the word "Valencias" can also be used instead of the cultivar indication.

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TABLE 6

TEMPERATURE CORRECTION TABLE WHERE THE REFRACTOMETER IS
USED AT TEMPERATURES OTHER THAN 20 °C

Temp °C	Percentage of sugar										
	0	5	10	15	20	25	30	40	50	60	70
Subtract from percentage of sugar											
10	0.50	0.54	0.58	0.61	0.64	0.66	0.68	0.72	0.74	0.76	0.79
11	.46	.49	.53	.55	.58	.60	.62	.65	.67	.69	.71
12	.42	.45	.48	.50	.52	.54	.56	.58	.60	.61	.63
13	.37	.40	.42	.44	.46	.48	.49	.51	.53	.54	.55
14	.33	.35	.37	.39	.40	.41	.42	.44	.45	.46	.48
15	.27	.29	.31	.33	.34	.34	.35	.37	.38	.39	.40
16	.22	.24	.25	.26	.27	.28	.28	.30	.30	.31	.32
17	.17	.18	.19	.20	.21	.21	.21	.22	.23	.23	.24
18	.12	.13	.13	.14	.14	.14	.14	.15	.15	.16	.16
19	.06	.06	.06	.07	.07	.07	.07	.08	.08	.08	.08
Add to percentage of sugar											
21	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
22	.13	.13	.14	.14	.15	.15	.15	.15	.16	.16	.16
23	.19	.20	.21	.22	.22	.23	.23	.23	.24	.24	.24
24	.26	.27	.28	.29	.30	.30	.31	.31	.31	.32	.32
25	.33	.35	.36	.37	.38	.38	.39	.40	.40	.40	.40
26	.40	.42	.43	.44	.45	.46	.47	.48	.48	.48	.48
27	.48	.50	.52	.53	.54	.55	.55	.56	.56	.56	.56
28	.56	.57	.60	.61	.62	.63	.63	.64	.64	.64	.64
29	.64	.66	.68	.69	.71	.72	.72	.73	.73	.73	.73
30	.72	.74	.77	.78	.79	.80	.80	.81	.81	.81	.81