



**GUIDE-LINE CLAUSES RELATING TO THE GRADING OF
FRESH APRICOTS, CLINGSTONE PEACHES AND PEARS
INTENDED FOR PROCESSING IN A FACTORY**

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CANNING DECIDUOUS FRUIT INDUSTRY

CLAUSES AND STANDARDS RELATING TO THE GRADING OF

FRESH APRICOTS INTENDED FOR PROCESSING IN A FACTORY

Definitions

1. In these clauses, unless inconsistent with the context, a word or expression have the following meaning -

"apricots" means the fruit of the tree Prunus armeniaca;

"blemishes" means external or internal visible defects caused by extraneous factors such as insects, fungi, bacteria, frost, hail, wind, orchard or handling practices or transport, and for which trimming is required;

"bruises" means large pressure or other wounds impairing the quality of the apricot;

"chemical residue" the remainder of any chemical substance present on or in apricots as determined by analysing samples of fruit destined for canning purposes;

"clean" means free from excessive dirt, dust, visible spray residues or other excessive foreign matter;

"colour card" the official canning fruit industry's colour card for apricots is used;

"consignment" in relation to apricots, means a quantity of apricots of a specific cultivar delivered at any one time under cover of the same consignment note, delivery note or receipt note;

"diameter" means the greatest diameter of the apricot, measured at right angles to the longitudinal axis;

"insect infestation" in relation to apricots, means internal or external infestation by insects, excluding Oriental Fruit Moth, notwithstanding the fact that larvae may not be present;

"light intensity" in relation to blemishes and bruises, means that the blemishes and bruises lye peel clean;

"medium intensity" in relation to blemishes and bruises, means that the blemishes and bruises are less than 25 per cent of the fruit and not deeper than 5 mm;

"over-ripe" means a stage where the apricots show signs of deterioration resulting in wilting, softness, browning or tissue decline on both halves;

"processing" means canning or manufacturing of processed foodstuffs;

"ripe" in relation to apricots means a stage of development which the fruit when delivered has reached which will ensure proper completion of the normal processing procedure;

"sound" means free from insect damage, decay or waste, physiological decline, or from visible external or internal physiological disorders which may appreciably affect the quality of the processed product;

"soft-ripe" means that the apricot is soft on the one half but firm on the other half;

"straight or mixed packs" means canned fruit packs containing canning apricots, clingstone peaches or pears in the form of whole fruits, halves, quarters, slices or dices and packed separately or collectively with one or more other fruit type, in the same container, in one of the mentioned forms;

"trimming" in relation to -

Bulidas: means the removal of a blemish after the apricot has been lye-peeled;

"true to cultivar" means that the apricots of a specific cultivar shall have all the characteristics, typical of the cultivar concerned;

"well-formed" means the normal shape of an apricot of any cultivar, typical of that cultivar.

Scope of Clauses

2. These clauses shall apply to apricots, sold by or on behalf of producers thereof, to a canner/processor.

Grading

3. (1) Apricots intended for processing into straight or mixed packs shall be graded according to the specifications of three grades, namely Canning Grade 1, Canning Grade 2 and Undergrade.
- (2) The specifications for Canning Grade 1 and Canning Grade 2 are as follows:

Quality Factor	Canning Grade 1	Canning Grade 2
(a) Cultivars	Bulida	As for Canning Grade 1
(b) Minimum diameter	36 mm	34 mm
(c) Trueness to cultivar and shape	True to cultivar and well-formed for the cultivar concerned	As for Canning Grade 1
(d) Colour	No fruit section greener than colour card No. 8 with Bulidas	No fruit section greener than colour card No. 5 with Bulidas
(e) Ripeness	Ripe	Soft ripe but not over-ripe
(f) Insect infestation	None Provided that -	None Provided that -
	(aa) in respect of insect infestation a consignment shall contain not more than 2 per cent insect infested fruit; and	(aa) with regard to insect infestation, a consignment may not exceed 2 per cent insect infested fruit; and
	(bb) such percentage of fruit shall be graded as Undergrade	(bb) such a percentage of fruit be graded as Undergrade
(g) Blemishes and bruises:		
(i) Light intensity	Allowed	Not applicable
(ii) medium intensity	None	Allowed
(h) Chemical residue (refer item 6 – <u>Maximum allowable chemical residue</u>)	None Provided that -	As for Canning Grade 1
	(aa) the maximum allowable chemical residue in respect of canning fruit as stipulated in item 6, is not exceeded; and	
	(bb) if such maximum is exceeded, the whole consignment shall be rejected	

- (3) No consignment of apricots intended for processing into straight or mixed packs shall contain less than 80 per cent Canning Grade 1 fruit.
- (4) Undergrade shall consist of -
 - (a) apricots which do not comply with the minimum requirements prescribed for Canning Grade 1 and Canning Grade 2;
 - (b) any consignment of apricots containing more than 15 per cent of the fruit mentioned in paragraph (a).

Packing

- 4. Apricots intended for processing, irrespective for what purpose, shall be packed separately according to the cultivar in bulk containers.

All containers of each consignment shall at delivery be properly identified, i.e. producer name/number, cultivar and date of delivery.

Taking of Samples

5.1 Sampling fruit for grading purposes

In order to determine the percentage of fruit contained in a consignment of apricots according to the different grades as prescribed, a final sample, taken in the following manner, shall be examined:

- (a) Take from a consignment a preliminary sample at random of -
 - (i) at least 10 kg apricots from a container, if the consignment consists of twenty or less bulk containers; and
 - (ii) at least 20 kg apricots from different containers, if the consignment consists of more than twenty bulk containers;
- (b) Take from the preliminary sample a final sample at random of at least 10 kg apricots;
- (c) Take at least one further sample at random in the case of insect infestation being found in the first sample;
- (d) If a producer or processor requests the grading of a second sample, this can only happen when the consignment is graded lower than 90% Canning Grade 1. The average result of the two gradings should then be taken into consideration.

5.2 Handling of fruit samples destined for chemical analysis

Take from the preliminary sample as described under paragraph 1 above, a sample of approximately one kilogramme of fruit and place it in a plastic bag. The bag is then tied, numbered and stored. The origin of the samples is registered in the prescribed record book and a copy of this list is then handed over with the samples to the person collecting the samples at the depots. The samples are then taken to the Laboratory for analysis.

If a consignment of fruit is found to exceed the recommended maximum residue levels of certain chemicals as indicated in Addendum 1, two additional samples shall be taken of that particular cultivar in the presence of representatives of the Canning Fruit Producers' Association, the processor and producer and sealed before sending it to the Laboratory for analysis. If the results of the tests are positive, no further consignments of that particular cultivar will be accepted until the fruit of that particular orchard complies with the prescribed requirements. Thereafter every consignment of that particular producer shall be sampled for analysis for the account of the producer. If the residue levels of the samples again exceed the prescribed recommended maximum levels, two samples shall be taken for analysis. If the tests are again positive, no fruit of that particular cultivar grown by that particular producer will be accepted during the season.

Maximum allowable chemical residue

6. No producer shall sell and no processor shall purchase for processing in a factory, locally produced fresh apricots that contain -
- (i) more than the maximum amount of residue of any chemical substance mentioned in Addendum 1 (This Document will be upgraded annually);
 - (ii) any residue of non-registered chemicals.

CLAUSES AND STANDARDS RELATING TO THE GRADING OF

FRESH CLINGSTONE PEACHES INTENDED FOR PROCESSING IN A FACTORY

Definitions

1. In these clauses, unless inconsistent with the context, a word or expression have the following meaning -

"blemishes" means external or internal visible defects caused by extraneous factors such as insects, fungi, bacteria, frost, hail, wind, orchard or handling practices or transport, and for which trimming is required;

"bruises" means large pressure or other wounds impairing the quality of the peach;

"chemical residue" the remainder of any chemical substance present on or in clingstone peaches as determined by analysing samples of fruit destined for canning purposes;

"clean" means free from excessive dirt, dust, visible spray residues or other excessive foreign matter;

"colour card" the official canning fruit industry's colour card for clingstone peaches is used;

"consignment" in relation to peaches, means a quantity of peaches of a specific cultivar delivered at any one time under cover of the same consignment note, delivery note or receipt note;

"diameter" means the greatest diameter of the peach, measured at right angles to the longitudinal axis;

"firm" in relation to peaches, means firm-ripe but not over-ripe;

"fruit" means fresh peaches, intended for processing in a factory;

"insect infestation" in relation to peaches, means internal or external infestation by insects, excluding Oriental Fruit Moth, notwithstanding the fact that larvae may not be present;

"light intensity" in relation to blemishes and bruises, means that the blemishes and bruises lye peel clean;

"medium intensity" in relation to blemishes and bruises, that the blemishes and bruises require trimming but in total do not exceed 25 mm in diameter and are not deeper than 5 mm;

"over-ripe" means a stage in which the peach shows deterioration resulting in wilting, softness, browning or tissue breakdown;

"peaches" means the clingstone fruit of the tree Prunus persica;

"processing" means canning or manufacturing of processed foodstuffs;

"ripe" in relation to peaches means a stage of development which the fruit when delivered has reached which will ensure the proper completion of the normal processing procedure;

"sound" means free from insect damage, decay or waste, physiological decline, or from visible external or internal physiological disorders which may appreciably affect the quality of the processed product;

"straight or mixed packs" means canned fruit packs containing canning apricots, clingstone peaches or pears in the form of whole fruits, halves, quarters, slices or dices and packed separately or collectively with one or more other fruit type, in the same container, in one of the mentioned forms;

"trimming" means the removal of a blemish after the peach has been lye-peeled;

"true to cultivar" means that the peaches of a specific cultivar shall have all the characteristics, typical of the cultivar concerned;

"well-formed" means the normal shape of a peach of any cultivar, typical of that cultivar.

Scope of Clauses

2. These clauses shall apply to peaches, sold by or on behalf of producers thereof, to a canner/processor.

Grading

3.
 - (1) Peaches intended for processing into straight or mixed packs shall be graded according to the specifications of three grades, namely Canning Grade 1, Canning Grade 2 and Undergrade.
 - (2) The specifications for Canning Grade 1 and Canning Grade 2 are as follows:

Quality Factor	Canning Grade 1	Canning Grade 2
(a) Minimum Diameter Diameter: 57 – 60 mm	60 mm Provided that a tolerance of 7½% for the fruit group 57 – 60 mm shall be applicable	60 mm Provided that a tolerance of 2½% for the fruit group 57 – 60 mm shall be applicable
(b) Trueness to cultivar and shape	True to cultivar and well-formed	As for Canning Grade 1
(c) Colour (refer item 6 - <u>Determination of minimum colour</u>)	Light yellow to deep yellow No section greener than colour card No 4	Light yellow to deep yellow No section greener than colour card No 3
(d) Ripeness	Firm and ripe	As for Canning Grade 1
(e) Insect infestation	None Provided that – (aa) With regard to insect infestation, a consignment may not exceed 2 per cent insect infested fruit; and (bb) such a percentage of fruit be graded as Undergrade	None Provided that – (aa) With regard to insect infestation, a consignment may not exceed 2 per cent insect infested fruit; and (bb) such a percentage of fruit be graded as Undergrade
(f) Blemishes and bruises		
(i) Light intensity	Allowed	Allowed
(ii) Medium intensity	Not allowed	Allowed
(g) Chemical residue (Refer item 7 – <u>Maximum allowable chemical residue</u>)	None Provided that – (aa) The maximum residue limits with regard to canning fruit as stipulated in item 7, is not exceeded; and (bb) if the maximum is exceeded the whole consignment shall be rejected	As for Canning Grade 1

- (3) No consignment of peaches intended for processing into straight or mixed packs shall contain less than 80 per cent Canning Grade 1 fruit.
- (4) Undergrade shall consist of -
 - (a) peaches which do not comply with the minimum requirements prescribed for Canning Grade 1 and Canning Grade 2;
 - (b) any consignment of peaches containing more than 15 per cent of the fruit mentioned in paragraph (a).

Packing

4. Peaches intended for processing, irrespective for what purpose, shall be packed separately according to the cultivar in bulk containers.

All containers of each consignment shall at delivery be properly identified, i.e. producer name/number, cultivar and date of delivery.

Taking of Samples

5.1 Sampling fruit for grading purposes

In order to determine the percentage of fruit contained in a consignment of peaches according to the different grades as prescribed, a final sample, taken in the following manner, shall be examined:

- (a) Take at random from a consignment a preliminary sample of -
 - (i) at least 20 kg peaches from a container, if the consignment consists of twenty or less bulk containers; and
 - (ii) at least 40 kg peaches from different containers (with a guide-line of one sample per twenty bulk containers), if the consignment consists of more than twenty bulk containers;
- (b) Take at random from the preliminary sample a final sample of at least 20 kg peaches;
- (c) Take at least one further sample at random if insect infestation is being found in the first sample;
- (d) If a producer or processor requests the grading of a second sample, this can only happen when the consignment is graded lower than 90% Canning Grade 1. The average result of the two gradings should then be taken into consideration.

5.2 Handling of fruit samples destined for chemical analysis

Take from the preliminary sample as described under paragraph 1 above, a sample of approximately one kilogramme of fruit and place it in a plastic bag. The bag is then tied, numbered and stored. The origin of the samples is registered in the prescribed record book and a copy of this list is then handed over with the samples to the person collecting the samples at the depots. The samples are then taken to the Laboratory for analysis.

If a consignment of fruit is found to exceed the recommended maximum residue levels of certain chemicals as indicated in Addendum 1, two additional samples shall be taken of that particular cultivar in the presence of representatives of the Canning Fruit Producers' Association, the processor and producer and sealed before sending it to the Laboratory for analysis. If the results of the tests are positive, no further consignments of that particular cultivar will be accepted until the fruit of that particular orchard complies with the prescribed requirements. Thereafter every consignment of that particular producer shall be sampled for analysis for the account of the producer. If the residue levels of the samples again exceed the prescribed recommended maximum levels, two samples shall be taken for analysis. If the tests are again positive, no fruit of that particular cultivar grown by that particular producer will be accepted during the season.

Determination of minimum colouring

6. The Canning Fruit Producers' Association colour disc shall be used to determine the minimum colouring of peaches.

Maximum allowable chemical residue

7. No producer shall sell and no processor shall purchase for processing in a factory, locally produced fresh clingstone peaches that contain -
 - (i) more than the maximum amount of residue of any chemical substance mentioned in Addendum 1 (This Document will be upgraded annually);
 - (ii) any residue of non-registered chemicals.

CLAUSES AND STANDARDS RELATING TO THE GRADING OF
FRESH PEARS INTENDED FOR PROCESSING IN A FACTORY

Definitions

1. In these clauses, unless inconsistent with the context, a word or expression have the following meaning -

"blemishes" means external or internal visible defects caused by extraneous factors such as insects, fungi, bacteria, frost, hail, wind, orchard or handling practices or transport, and for which trimming is required;

"border-line fruit" means pears which exceed the minimum or maximum pressure of a cultivar concerned as prescribed in clauses 3.(2)(f) and (g), by not more than 0,9 kg;

"brix" means the percentage of sugar as measured by a refractometer corrected for temperature;

"bruises" means large pressure or other wounds impairing the quality of the pear;

"card" means the official canning fruit industry's cards for pears as described, is used;

"chemical residue" the remainder of any chemical substance present on or in pears as determined by analysing samples of fruit destined for canning purposes;

"clean" means free from excessive dirt, dust, visible spray residues or other excessive foreign matter;

"consignment" in relation to pears, means a quantity of pears of a specific cultivar delivered at any one time under cover of the same consignment note, delivery note or receipt note;

"diameter" means the greatest diameter of the pear, measured at right angles to the longitudinal axis;

"fruit" means fresh pears, intended for processing in a factory;

"insect infestation" in relation to pears, means internal or external infestation by insects notwithstanding the fact that larvae may not be present;

"light intensity" in relation to blemishes and bruises means that the blemishes and bruises shall machine-peel clean i.e. that the depth of blemishes and bruises must not exceed 1,6 mm from the surface of the fruit;

"medium intensity" in relation to blemishes and bruises means that the blemishes and bruises need trimming but in total will not exceed 25 mm in diameter or are deeper than 1,6 mm, but not deeper than 5 mm on fruit surface;

"pears" means the fruit of the tree Pyrus communis;

"pressure" means pressure tension as determined by means of a Ballauf pressure-tester fitted with a plunger of 8 mm in diameter;

"processing" means canning or manufacturing of processed foodstuffs;

"sound" means free from insect damage, decay or waste, physiological decline, or from visible external or internal physiological disorders which may appreciably affect the quality of the processed product;

"straight or mixed packs" means canned fruit packs containing canning apricots, clingstone peaches or pears in the form of whole fruits, halves, quarters, slices or dices and packed separately or collectively with one or more other fruit types, in the same container, in one of the mentioned forms;

"trimming" means the removal of a blemish after the pear has been peeled;

"true to cultivar" means that the pears of a specific cultivar shall have all the characteristics, typical of the cultivar concerned;

"well-formed" means the normal shape of reasonably symmetrically formed pear of any cultivar, typical of that cultivar.

Scope of Clauses

2. These clauses shall apply to pears, sold by or on behalf of producers thereof, to a canner/processor.

Grading

3. (1) Pears intended for processing into straight or mixed packs shall be graded according to the specifications of three grades, namely Canning Grade 1, Canning Grade 2 and Undergrade.
- (2) The specifications for Canning Grade 1 and Canning Grade 2 are as follows:

Quality Factor	Canning Grade 1	Canning Grade 2
(a) Minimum Diameter Diameter: 57 – 60 mm	60 mm Provided that a tolerance of 7½% for the fruit group 57 – 60 mm shall be applicable	60 mm Provided that a tolerance of 2½% for the fruit group 57 – 60 mm shall be applicable
(b) Trueness to cultivar	True to cultivar	As for Canning Grade 1
(c) Shape		
(i) Symmetry	Card P19 with maximum colour print No. 4	Card P19 with maximum colour print No. 4
(ii) Deformed calyx ends	Card for deformed calyx ends on Bon Chretien, with maximum colour print No. 4	Bon Chretien card with maximum colour print No. 5
(d) Insect infestation	None Provided that -	None Provided that -
	(aa) with regard to insect infestation, a consignment may not exceed 2 per cent insect infested fruit; and	(aa) in respect of insect infestation, a consignment shall not contain more than 2 per cent insect infested fruit; and
	(bb) such a percentage of fruit shall be grade as Undergrade	(bb) such a percentage of fruit shall be graded as Undergrade
(e) Blemishes and bruises:	Allowed	Not applicable
(i) Light intensity	None	Allowed
(ii) Medium intensity	<u>Minimum</u> kg (lb) <u>Maximum</u> kg (lb)	<u>Minimum pressure</u>
(f) Pressure (kg)	7,2 (16) 10,4 (23)	As for Canning Grade 1
(i) Bon Chretien	3,6 (8) 6,3 (14)	As for Canning Grade 1
(ii) Beurre Hardy	5,4 (12) 8,6 (19)	As for Canning Grade 1
(iii) Clapp's Favourite	4,5 (10) 7,7 (17)	As for Canning Grade 1
(iv) Packhams Triumph		

Quality Factor	Canning Grade 1	Canning Grade 2
(g) Boarder-line fruit	None: Provided that – (aa) a deviation of not more than 5 per cent (one fruit) will be allowed; and (bb) if the 5 per cent is exceeded, the whole consignment will be graded as Canning Grade 2	None: Provided that each fruit lower than 6,3 kg (14lb) represents 5 per cent Undergrade
(h) Chemical residue (refer item 7 – <u>Maximum allowable chemical residue</u>)	None: Provided that – (aa) the maximum allowable residue with regard to canning fruit as stipulated in item 7 is not exceeded; and (bb) if such maximum is exceeded, the whole consignment shall be rejected	As for Canning Grade 1

- (3) No consignment of pears intended for processing to single or mixed packs may contain less than 80 per cent Canning Grade 1 fruit.
- (4) Undergrade shall consist of -
- (a) pears which do not comply with the minimum requirements prescribed for Canning Grade 1 and Canning Grade 2;
 - (b) any consignment containing more than 15 per cent of the fruit mentioned in paragraph (a).

Packing

4. Pears intended for processing, irrespective for what purpose, shall be packed separately according to the cultivar in bulk containers:

Provided that the degree of ripeness of pears in the same container shall not vary abnormally.

All containers of each consignment shall at delivery be properly identified, i.e. producer name/number, cultivar and date of delivery.

Taking of Samples**5.1 Sampling fruit for grading purposes**

In order to determine the percentage of fruit contained in a consignment of pears according to the different grades as prescribed, a final sample, taken in the following manner, shall be examined:

- (a) Take at random from the consignment a preliminary sample of -
 - (i) at least 20 kg pears from a container, if the consignment consists of twenty or less bulk containers; and
 - (ii) at least 40 kg pears from different containers, if the consignment consists of more than twenty bulk containers;
- (b) Take at random from the preliminary sample a final sample of at least 20 kg pears;
- (c) Take at least one further sample at random in the case of insect infestation being found in the first sample;
- (d) If a producer or processor requests the grading of a second sample, this can only happen when the consignment is graded lower than 90% Canning Grade 1. The average result of the two gradings should then be taken into consideration.

5.2 Handling of fruit samples destined for chemical analysis

Take from the preliminary sample as described under paragraph 1 above, a sample of approximately one kilogramme of fruit and place it in a plastic bag. The bag is then tied, numbered and stored. The origin of the samples is registered in the prescribed record book and a copy of this list is then handed over with the samples to the person collecting the samples at the depots. The samples are then taken to the Laboratory for analysis.

If a consignment of fruit is found to exceed the recommended maximum residue levels of certain chemicals as indicated in Addendum 1, two additional samples shall be taken of that particular cultivar in the presence of representatives of the Canning Fruit Producers' Association, the processor and producer and sealed before sending it to the Laboratory for analysis. If the results of the tests are positive, no further consignments of that particular cultivar will be accepted until the fruit of that particular orchard complies with the prescribed requirements. Thereafter every consignment of that particular producer shall be sampled for analysis for the account of the producer. If the residue levels of the samples again exceed the prescribed recommended maximum levels, two samples shall be taken for analysis. If the tests are again positive, no fruit of that particular cultivar grown by that particular producer will be accepted during the season.

Determination of Ripeness

6. The ripeness of pears is determined by examining 20 fruit taken at random from a sample of 20 kg drawn at random from a consignment.

A thin layer of skin shall be peeled from a small area of the two opposite sides of each fruit in the final sample of 20 fruit. The pressure of the flesh of each fruit is determined by taking pressure readings with a pressure-tester on the areas where the skin is removed.

The pears in a consignment are regarded as having reached the correct stage of ripeness if the average of the two pressure readings of each fruit tested in a sample complies with the requirements prescribed in relation to pressure as specified in clauses 3.(2)(f) and (g).

Maximum allowable chemical residue

7. No producer shall sell and no processor shall purchase for processing in a factory, locally produced fresh pears that contain –
- (i) more than the maximum amount of residue of any chemical substance mentioned in Addendum 1 (This Document will be upgraded annually);
 - (ii) any residue of non-registered chemicals.
