

DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

NO. 538

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AGRICULTURAL PRODUCT STANDARDS ACT, 1990
(ACT No. 119 OF 1990)

**REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF PINEAPPLES
INTENDED FOR SALE IN THE REPUBLIC OF SOUTH AFRICA**

The Minister of Agriculture, Forestry and Fisheries has under section 15 of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990) --

- (a) made the regulations in this Schedule; and
- (b) determined that the said regulations shall come into operation twelve (12) months after the date of publication.

SCHEDULE

Definitions

1. In these regulations any word or expression to which a meaning has been assigned in the Act shall have that meaning and, unless the context otherwise indicates --

"Arthropod" means any stage in the life cycle of an invertebrate member of the Animal Kingdom that is bilaterally symmetrical with a segmented body, with jointed limbs that are paired and a chitinous external skeleton;

"black heart" means small yellow or brown, opaque spots in the flesh of the pineapple, especially at the base of the fruit near the core, which enlarge and darken and in serious cases, especially during storage and ageing, give rise to the internal blackening of the fruit to within a few millimetres from the skin;

"black spot" means --

- (a) the soft, watery, brown discoloration (wet type) of an infested fruitlet which spreads to neighbouring fruitlets; or
- (b) dry spot of which the infested tissue has a brown and corky appearance;

"blemish" means any external skin defect on the surface of the pineapple that detrimentally affects the appearance of the pineapple;

"bruise" means any indentation or discoloration directly under the skin;

"consignment" means --

- (a) a quantity of pineapples of the same cultivar, belonging to the same owner and delivered at the same time under cover of the same delivery note, consignment note or receipt note, or delivered by the same vehicle; or
- (b) in the case of a quantity of pineapples that is divided into different cultivars, classes, diameter groups, pallet loads, trademarks or types of packaging, every quantity of each of the different cultivars, classes, diameter groups, pallet loads, trademarks or types of packaging;

"container" means the immediate package in which pineapples are packed directly and outer packages in which prepacked units are packed;

"decay" means a state of decomposition, fungus development, internal insect infestation or internal insect

damage, with signs of tissue collapse or insect excrement, which detrimentally affects the quality of the pineapples;

"**diameter**" means the largest section measured at right angles to the longitudinal axis of the pineapple;

"**dry crack**" means any crack that exposes the flesh and which has dried out and is sealed off;

"**foreign matter**" means any material or substance not normally present in, on or between the pineapples;

"**glassiness**" means –

- (a) in relation to major, means the occurrence of a glassy appearance into the core and/or up to a level just beneath the surface of the shell and/or which results in fermentation; and
- (b) in relation to minor, means a glassy appearance of the flesh with yellowing and/or browning of the core;

"**injury**" means any wound which has pierced the skin of the pineapple and exposes the flesh, with the exception of such wounds which have become completely callused;

"**inspector**" means an officer under the control of the Executive Officer or an Assignee or a qualified employee of an Assignee;

"**internal heat damage**" means a condition which causes sagging of the flesh directly under the skin, desiccation and grey to yellow-brown discoloration of the flesh and/or a crack in the core;

"**pineapples**" means the fruit of the cultivar which are grown from the species *Ananas Comosus*;

"**prepacked unit**" means any single packing unit for presentation as such to the consumer consisting of pineapples and the packaging into which the pineapples were put before being offered for sale;

"**the Act**" means the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990);

"**well-formed**" means that the pineapple has a shape which is typical of the cultivar concerned;

"**winter spot**" means a ring blemish on the ring eyes of the pineapple which covers the total fruit area and which makes the appearance unattractive; and

"**yellow spot**" means elevated yellow spots on the crown leaves or, if occurring internally, a condition where the individual fruitlets are caused to die off so that a dry cavity is formed (it is also referred to a "dead eye").

PART I

Restrictions over the sale of pineapples

2. (1) No person shall sell pineapples in the Republic of South Africa --
- (a) unless such pineapples are sold according to the classes set out in regulation 3;
 - (b) unless such pineapples comply with the standards for the class concerned as set out in regulation 4;
 - (c) unless such pineapples are packed in a container and in accordance with the packing requirements as set out in regulations 5, 6, 7, 8, and 9; and
 - (d) unless such pineapples are marked with the particulars and in the manner prescribed in regulation 10.

(2) Imported pineapples may be exempted from the provisions of sub-regulation (1): provided that the pineapples --

- (a) comply with either the Codex, UNECE (United Nations Economic Commission for Europe) or OECD (Organisation for Economic Co-operation and Development) standards; and
- (b) are according to bilateral agreement accompanied by certificate issued by a relevant government authority responsible for quality control of fresh fruit and vegetables and in which it is certified that the quality of the pineapples as verified through inspection conforms to the relevant standard.

(3) The Executive Officer may grant written exemption, entirely or partially, to any person on such conditions as he or she deems necessary, from the provisions of sub-regulation (1).

QUALITY STANDARDS

Classes of pineapples

3. There are three classes of pineapples, namely Class 1, Class 2 and Lowest Class.

Standards for classes

4. (1) Pineapples shall comply with the specifications as set out in Tables 1, 2 and 3.
- (2) No consignment of pineapples classified as "Class 1", "Class 2", and "Lowest Class" shall contain:
- (a) any organisms which may be a source of danger to human beings; and
 - (b) Arthropod infestation including the organisms which according to paragraph (a) do not form part of plant injurious organisms, excluding organisms which may be a source of danger to the human beings, on more than 3% of the pineapples or three free running Arthropod per pallet load or part thereof in the consignment: Provided that it does not exceed a maximum of one Arthropod per container.

PART II

PACKING REQUIREMENTS

Containers

5. (1) Containers in which pineapples are packed shall --
- (a) be clean, dry, undamaged and suitable;
 - (b) not impart a foreign taste or odour to the pineapples;
 - (c) be free from any visible signs of fungus growth;
 - (d) be free from Arthropod infestation; and
 - (e) be strong and rigid enough to ensure that the original shape be retained and not bulge out, dent in, break or tear, to the extent that pineapples are damaged or are at risk of being damaged, during normal storage, handling or transport.
- (2) Containers (excluding cartons) that are re-used, shall be of a suitable material that can be cleaned and disinfected prior to re-use.

Packing requirements

6. (1) Only pineapples of the same quality, size and cultivar shall be packed together in the same container.
- (2) Pineapples in the same container shall be uniform in size.
- (3) If pineapples are packed in prepacked units, such units shall be packed in a suitable manner in an outer package: Provided that the prepacked units are clean, dry, undamaged and suitable.

Packing material

7. If packing material is used inside containers, such packing material shall be clean, dry, odourless and of a quality such as to avoid causing any external or internal damage to the pineapples.

Stacking of containers on pallets

8. If containers containing pineapples are palletised --
 - (1) the pallet shall be clean, undamaged and suitable;
 - (2) the containers shall be stacked firmly and square with each other and the pallet;
 - (3) only containers of the same dimensions shall be stacked in the same layer on the pallet; and
 - (4) the containers shall not be stacked upside-down on the pallet.

Strapping of pallet loads

9. (1) A pallet load of containers shall be strapped in a suitable manner.
- (2) If containers without lids are being used, a suitable covering may be placed on top of the pallet load of containers before the pallet load is strapped.

MARKING REQUIREMENTS

10. (1) Each container containing pineapples shall be marked clearly, indelibly, legibly and neatly on any visible short or long side of the lid or container, where lids are not used, by printing, stamping or by means of specially designed labels with the following particulars: Provided that all particulars shall be grouped on the same side:
 - (a) the expression "Pineapples" in case of containers where the contents are not visible from the outside;
 - (b) the appropriate cultivar/variety;
 - (c) the appropriate Class in accordance with regulation 3;
 - (e) the name and physical or postal address of the producer or owner of the contents of container;
 - (f) the country of origin (e.g. "Product of South Africa", "Produced in South Africa" or any other similar expression);
 - (g) the expression: "Intended for decorations" or any other similar wording; and
 - (h) the applicable date of packing/date code (optional).

(2) Subject to the provisions of sub-regulation (1), each outer package containing prepacked units shall be marked with an indication of the total number of prepacked units per outer package: Provided that if the total number of prepacked units is visible from the outside, it does not have to be indicated on the outer package.

Prohibition of false or misleading description of products

11. No person shall use any name, word, expression, reference, particulars or indication in any manner, either by itself or in conjunction with any other verbal, written, printed, illustrated or visual material, in connection with the sale of a product in a manner that conveys or creates or is likely to convey or create a false or misleading impression as to the nature, substance, quality or other properties, or the class or grade, origin, identity or manner or place of production, of that product.

Display

12. If pineapples are displayed for sale in loose quantities –

- (1) any quantity of a particular class or cultivar, as the case may be, shall not be displayed mixed with pineapples of any other class or cultivar; and
- (2) the class and cultivar of such quantity of pineapples shall be indicated in clear legible letters on a notice board prominently placed at the quantity of pineapples.

PART III

SAMPLING PROCEDURES

Obtaining a sample of the consignment

13. At least two percent in a consignment shall be drawn at random for inspection purposes and an inspector shall be satisfied that the containers so drawn are representative of the consignment concerned.

Obtaining an inspection sample

14. An inspection sample shall be drawn from each container obtained in accordance with regulation 13 and consist of the entire contents of the container.

Deviating sample

15. If an inspector should notice during the process of drawing the random sample or during the inspection, that some of the containers derived from any part of the pallet load, truck load or consignment, contain pineapples which are noticeably inferior to or differ from the contents of the containers which represent the remainder of the pallet load, truck load or consignment, the inspection results shall be based only on the containers derived from the deviating portion of the pallet load, truck load or consignment, and further samples required for inspection shall be drawn from this deviating portion.

METHODS OF INSPECTION

Determination of internal deviations

16. Internal deviations in pineapples shall be determined as follows:

- (1) Take as working sample the pineapples which, in the opinion of the inspector, are the most likely to have been affected by internal deviations from the inspection sample obtained in

accordance with regulation 14.

- (2) Peel the pineapples.
- (3) Cut each of the pineapples in the length in disks of about 6 mm thick.
- (4) Calculate the number of pineapples thus found to be affected by internal deviations, as a percentage of the total number of pineapples in the inspection sample.
- (5) Determine the average percentage of all the inspection samples taken in accordance with regulation 14.

Determination of brix

17. (1) The brix of the pineapples in a consignment shall be determined with a calibrated refractometer.

(2) At least ten fruit shall be taken from the containers drawn for inspection in regulation 14, for the obtaining of a representative juice sample (the fruit must preferably be taken from different containers). Both halves of each fruit should be tested.

(3) A representative juice sample shall be obtained as follows:

- (a) Use a knife to cut each of the ten fruit obtained in subregulation 17 (2) in half at right angles to its longitudinal axis.
- (b) Use a knife to repeatedly prick the flesh of the cut fruits as thoroughly as possible.
- (c) Squeeze the cut half in order to obtain juice.

(4) To determine brix, the following procedure shall be followed:

- (a) Clean the prism plate with distilled water and wipe off with a clean, dry tissue.
- (b) Place an equal number of two or more juice drops on the prism plate of the refractometer.
- (c) Note the reading on the prism scale to one decimal place.
- (d) Determine the average reading of the ten fruits.
- (e) Such average reading represents the brix of the consignment concerned.

(5) If the test does not comply, another sample shall be drawn and tested. The consignment shall be approved if the average of all the ten fruits thus tested complies with the aforesaid prescribed requirement. If the second test of the average of all ten fruits thus tested doesn't comply with the aforesaid prescribed requirement the consignment shall be rejected.

Offence and penalties

18. Any person who contravenes or fails to comply with the provisions of these regulations, shall be guilty of an offence and may upon conviction be liable to a fine or to imprisonment in terms of section 11 of the Act.

TABLE 1: PERMISSIBLE CULTIVARS

CULTIVARS/VARIETIES
Cayenne MD2 Queen
Any other suitable cultivar

TABLE 2: QUALITY STANDARDS

Quality Factor	Class 1		Class 2		Lowest Class
1. Appearance	Attractive, clean, fresh and intact		Attractive, clean, fresh and intact		*
2. Shape	Typical of the cultivar concerned		Typical of the cultivar concerned		*
3. Crowns	(a)	Fresh, firm, clean, well-formed and free from dead or dry leaves	(a)	Fresh, firm, clean, well-formed and free from dead or dry leaves; and	*
	(b)	shall be single; and	(b)	double crowns are allowable	*
	(c)	no sprouts are allowable			
4. Stems	Shall be attached: Provided that it --		Shall be attached: Provided that it --		*
	(a)	shall be clean and well-formed;	(a)	shall be clean and well-formed;	*
	(b)	shall not be more than 30 mm in length, measured from a line across the base; and	(b)	shall not be more than 30 mm in length, measured from a line across the base; and	*
	(c)	shall be cut off evenly and cleanly	(c)	shall be cut off evenly and cleanly	*
5. Callused cracks (dry)					
(a) Single callused crack	Two dry crack which does not exceed the dimensions below, is allowable		Two dry crack which does not exceed the dimensions below, is allowable		*
	Maximum length	Maximum depth	Maximum length	Maximum depth	
	(i) 5 mm	3 mm	(i) 10 mm	3 mm	
	/or		/or		
	(ii) 10 mm	2 mm	(ii) 20 mm	3 mm	

(b)	Multiple callused cracks	Two dry cracks not exceeding 5 mm in length and 2 mm in depth is allowable		Two dry cracks not exceeding 10 mm in length and 3 mm in depth is allowable		*
6.	Blemishes (maximum combined surface area)					
(a)	Queen					
(i)	250 - 500 g	200 mm ²		250 mm ²		*
(ii)	501 - 1 000 g	250 mm ²		300 mm ²		*
(iii)	1 001 - 1 500 g	350 mm ²		400 mm ²		*
(b)	Cayenne, MD2 and other cultivars/varieties					
(i)	700 - 1 000 g	250 mm ²		350 mm ²		*
(ii)	1 001 - 1 500 g	350 mm ²		450 mm ²		*
(iii)	1 501 - 2 000 g	400 mm ²		500 mm ²		*
(iv)	2 001 - 3 000 g	500 mm ²		600 mm ²		*
7.	Minimum mass in the case of:					
(a)	Queen	250 g: Provided that if the pineapples are intended for decorative purposes, it shall weigh at least 150 g		250 g: Provided that if the pineapples are intended for decorative purposes, it shall weigh at least 150 g		*
(b)	Cayenne, MD2 and other cultivars/varieties	700 g: Provided that if the pineapples are intended for decorative purposes, it shall weigh at least 250 g		700 g: Provided that if the pineapples are intended for decorative purposes, it shall weigh at least 250 g		*
8.	Skin colour (light yellow to orange) in the case of:	Minimum	Maximum	Minimum	Maximum	*
(i)	Queen	Colour break	100%	Colour break	100%	
(ii)	Cayenne, MD2 and other cultivars/varieties	Colour break	100%	Colour break	100%	

9. Minimum maturity	12° Brix	12° Brix	*
10. Black heart			
(a) Individually	Not more than 3 spots of 2 mm in diameter is allowable	Not more than 3 spots of 3 mm in diameter is allowable	*
(b) Combined	Not more than 5 mm in diameter	Not more than 6 mm in diameter	*
11. Black spot			
(a) Dry	One spot of 10 mm in diameter is allowable: Provided that not more than 3 spots which collectively do not exceed 10 mm in diameter is allowable	One spot of 10 mm in diameter is allowable: Provided that not more than 3 spots which collectively do not exceed 10 mm in diameter is allowable	*
(b) Wet (progressive)	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*
12. Glassiness			
(a) Minor	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*
(b) Major	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*
13. Yellow spot	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*
14. Foreign matter	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*
15. Uniformity of size in the same container	Uniform: Provided that the mass of the largest fruit shall not exceed the mass of the smallest fruit by more than 33%	Uniform: Provided that the mass of the largest fruit shall not exceed the mass of the smallest fruit by more than 33%	*
16. Unspecified internal or external quality defects not mentioned above	May deviate to the extent set out in Table 3	May deviate to the extent set out in Table 3	*

* Denotes no specifications

TABLE 3: MAXIMUM PERMISSIBLE DEVIATIONS BY NUMBER

Quality Factor	Class 1	Class 2	Lowest Class
1. Decay	6%	12%	20%
2. Injuries, cracks, internal heat damage, yellow spot, winter spot, bruises, glassiness, as well as unspecified internal quality defects, individually	10%	15%	*
3. Sunburn, blemishes, dust deposits and defects with regard to crown or stem, as well as any unspecified external defects, individually	10%	15%	*
4. Black spot (a) Dry Spot (b) Wet Spot	10% 10%	20% 15%	* *
5. Black heart	10%	15%	*
6. Minimum and maximum colour	15%	20%	*
7. Visible chemical residues	3%	6%	*
8. Minimum mass	10%	15%	*
9. Lack of uniformity in size in the same container	10%	15%	*
10. Deviation from packing and marking requirements	10%	15%	*
11. Foreign matter	10%	15%	*
12. Deviations in items 2, 3, 4, 5, and 8 of this table, including unspecified internal and external deviations, collectively: Provided that such deviations are individually within the specified limits	15%	20%	*

* Denotes no specification