

DEPARTMENT OF AGRICULTURE

No. R. 3

5 January 2001

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

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

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

- (a) made the regulations in the Schedule; and
- (b) read together with section 3(2) of the said Act, repealed the regulations as published by Proclamation No. R. 72 of 1973 in so far as it related to canned mushrooms, Government Notices Nos. R. 2077 of 9 October 1980, R. 1329 of 9 July 1982, R. 994 of 13 May 1983 and R. 602 of 30 March 1984.

SCHEDULE

Definitions

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

“**A2 ½ container**” means a container with a capacity of 853 ml;

“**blemishes**” means scab, surface spots or other discolouration on the surface of the mushrooms that detract markedly from the overall appearance of any particular unit;

“**canned mushrooms**” means commercially sterile mushrooms in hermetically sealed containers;

“**commercially sterile**” means the condition achieved by application of heat, sufficient, alone or in combination with other appropriate treatments, to render the mushrooms free from micro-organisms capable of growing in food at normal non-refrigerated conditions at which the mushrooms are held during distribution, storage and display;

“**consignment**” means a quantity of containers of canned mushrooms of the same grade and type, that is delivered at any one time under cover of the same consignment note, delivery note or receipt note, or is delivered by the same vehicle, or if such a quantity is subdivided into different production groups or packing sizes, each quantity of the different production groups or packing sizes;

“**container**” means the immediate container, manufactured from any suitable material, in which canned mushrooms are packed for final sale;

“**defects**” with regard to canned mushrooms, means --

- (a) defects caused by mechanical damage;
- (b) discolouration;
- (c) insect infestation;
- (d) damage of a phytopathological or other nature;
- (e) imperfections due to inadequate workmanship; or
- (f) foreign or poor tastes or odours;

“**drained mass**” means the mass, in grams, of the drained contents of a container determined in accordance with regulation 11;

“**extraneous vegetable matter**” means any harmless parts of the mushroom concerned not normally present in canned mushrooms;

“**foreign matter**” means any substance that does not normally form part of canned mushrooms;

“**hermetically sealed containers**” means containers that are sealed to protect the contents therein against the entry of micro-organisms during and after heat processing;

“**inspector**” means the executive officer or an officer under his or her control, or an assignee or an employee of such assignee;

“**loose stems**” means stems that are not attached to the *pileus*;

“**main panel**” means that part of a container on which the trade mark or trade name is most conspicuously displayed and any other part of the container bearing the trade mark or trade name equally conspicuous;

“**microbiological spoilage**” means spoilage of microbiological nature, determined as prescribed in the methods of inspection;

“**mushroom**” means the cultivated product of any of the edible mushroom species;

“**open veils**” means that the *pileus* has opened to such an extent that the *lamellae* are visible;

“**outer container**” means a container that contains one or more containers of canned mushrooms;

“**packed to capacity**” means that the container has been filled with the maximum quantity of mushrooms that can be sealed therein without breaking or crushing the contents thereof;

“**production group**” means a quantity of canned mushrooms marked with the same code marks;

“**sound**” means free from external or internal disorders that detrimentally affect the quality of the canned mushrooms;

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

“**uniform colour**” means that the product consists of units with a colour that does not vary significantly within the product concerned;

“**verticillium blemish**” means a blemish caused by the pathogenic fungus *Verticillium fungicola* whereof the damage may vary from dry spots to deformed mushrooms (known as dry bubbles);

“**200 mm sieve**” means a sieve with a diameter of 200 mm, with apertures of 2,36 mm, manufactured from wire with a diameter of not more than 1,25 mm and not less than 0,9 mm; and

“**300 mm sieve**” means a sieve with a diameter of 300 mm, with apertures of 2,36 mm, manufactured from wire with a diameter of not more than 1,25 mm and not less than 0,9 mm.

Restrictions on the sale of canned mushrooms

2. (1) No person shall sell canned mushrooms in the Republic of South Africa --
 - (a) unless such product is graded in accordance with the grades specified in regulation 3;
 - (b) unless such product complies with the quality standards referred to in regulation 4;

- (c) unless the containers in which such product is packed, comply with the requirements referred to in regulation 5;
- (d) unless such product is packed in accordance with the packing requirements referred to in regulation 6;
- (e) unless such product is marked with the particulars and in the manner prescribed in regulation 7; and
- (f) if such product is marked with particulars with which it may not be marked.

(2) The executive officer may exempt a person in writing, entirely or partially and on such conditions as he or she may deem necessary, from the provisions of subregulation (1).

QUALITY STANDARDS

Grades of canned mushrooms

3. The grades of canned mushrooms shall be --

- (a) Fancy Grade;
- (b) Choice Grade;
- (c) Standard Grade;
- (d) Substandard Grade; and
- (e) Undergrade.

Standards for grades

4. (1) The grades of canned mushrooms specified in regulation 3 --

- (a) shall be prepared from sound, fresh, clean and washed mushrooms;
- (b) shall, subject to the provisions of paragraph (c), be free from any foreign matter, excluding extraneous vegetable matter; and
- (c) may contain only food additives permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).

(2) Subject to the provisions of subregulation (1) --

- (a) Fancy Grade, Choice Grade and Standard Grade canned mushrooms shall comply with the quality standards as specified in Table 1 of the Annexure;
- (b) Substandard Grade canned mushrooms shall comprise mushrooms that do not comply with the quality standards specified in Table 1 of the Annexure, but which are still edible, normal in appearance and free from any foreign flavours and odours;
- (c) Undergrade canned mushrooms, that may not be presented for sale, shall comprise mushrooms that do not comply with the quality standards as specified in Table 1 of the Annexure, and which are inedible due to the presence of harmful or aesthetically objectionable foreign matter or foreign flavours and odours; and

- (d) Fancy Grade, Choice Grade and Standard Grade canned mushrooms shall not exceed the maximum percentage of permissible deviations as specified in Table 2 of the Annexure, with regard to each grade.

REQUIREMENTS FOR CONTAINERS

General

- 5. (1) Containers for canned mushrooms shall --
 - (a) be intact, clean, suitable and strong enough for the packing and normal handling of the canned mushrooms;
 - (b) be free from rust and serious dents or any other disorders that may detrimentally affect the quality of the product therein;
 - (c) not impart any undesirable taste or odour to the contents thereof; and
 - (d) be closed properly in a manner permitted by the nature thereof.
- (2) Metal surfaces of containers shall be properly lacquered on the inside in the case where the quality of the canned mushrooms may, at any time, be impaired due to contact with the metal of the container.
- (3) If containers are packed in outer containers, such outer containers shall be clean, neat and intact.

PACKING REQUIREMENTS

- 6. Except where stipulated otherwise in these regulations, canned mushrooms of different kinds, grades and types shall be packed in separate containers and outer containers.

MARKING REQUIREMENTS

- 7. (1) Each container shall be clearly, legibly and indelibly marked or labelled with the following particulars:
 - (a) A code mark that has been approved, in writing, by the executive officer and that consists of the name of the canning establishment, the product concerned and the date of manufacture thereof: Provided that --
 - (i) the canning establishment's identification code shall be indicated at the last position in the sequence; and
 - (ii) in the case of a transparent container where the contents are clearly visible, the product code need not be indicated.
 - (b) The name or trade mark of the manufacturer or packer.
 - (c) The physical address of the manufacturer or packer.
 - (d) A true description, that shall be declared on the main panel, of the contents thereof.
 - (e) The packing medium in which the product concerned is packed, expressed as part of the product name or in close proximity to the product name.
 - (f) An indication of the grade thereof: Provided that the expression "Extra Choice Grade" may be used instead of the expression "Fancy Grade".

- (g) The net mass of the contents as required in terms of the Trade Metrology Act, 1973 (Act No. 77 of 1973).
- (h) The drained mass of the contents.
- (i) The country of origin.

(2) If one or more containers are packed in an outer container, such outer container shall be marked with the following particulars:

- (a) The name or trade mark of the manufacturer or packer.
- (b) The physical address of the manufacturer or packer.
- (c) A true description of the contents thereof.
- (d) An indication of the grade thereof: Provided that the expression "Extra Choice Grade" may be used instead of the expression "Fancy Grade".
- (e) The net mass of the contents thereof as required in terms of the Trade Metrology Act, 1973 (Act No. 77 of 1973).
- (f) The country of origin.
- (g) The number of containers packed therein.

(3) If a transparent outer container is used and the particulars on the containers are visible from the outside, the requirements of subregulation (2) need not be complied with.

(4) The label of a container shall - -

- (a) be clean and neat;
- (b) be pasted securely;
- (c) not be pasted over other labels; and
- (d) be affixed to such container only by or on behalf of the packer concerned or his or her agent.

Prohibited particulars

8. No word, mark, illustration, depiction or any other method of expression that constitutes a misrepresentation, or that directly or by implication creates or may create a misleading impression regarding the contents, quality or grade, shall appear on a container or outer container that contains canned mushrooms.

SAMPLING

Obtaining a representative sample

9. (1) For the purpose of an inspection, an inspector shall proceed as follows:

- (a) Draw at random a representative sample by drawing the number of containers specified in column 2 of Table 3 of the Annexure opposite the production group specified in column 1 of the said table, taking the net mass of each container into consideration.

- (b) Examine from each of the containers obtained in paragraph (a), a working sample that is representative of the contents of the container of a size as prescribed in subregulation (2).
 - (c) Determine the number of containers of which the contents do not comply with these regulations.
 - (d) If the number of containers contemplated in paragraph (c), exceed the number of containers specified in column 3 of Table 3 of the Annexure, the consignment shall be downgraded.
- (2) A working sample shall, in the case of --
- (a) A2½ containers or smaller containers, consist of the drained contents of the container; and
 - (b) containers larger than A2½ containers, consist of a representative drained sample of 600 g.

METHODS OF INSPECTION

Determination of microbiological spoilage

10. Microbiological spoilage shall be determined in the following manner:
- (a) Store a representative sample of the canned mushrooms for at least ten days at 37°C.
 - (b) Determine the percentage of spoilage by calculating the number of containers that blow or leak as a percentage of the production group.
 - (c) The containers in any production group that blow or leak during the period of ten days of storage may be removed from the production group concerned if the rest of the production group is stored for a further period of ten days at warehouse temperature for the determination of the percentage of spoilage.

Determination of drained mass

11. (1) The drained mass of canned mushrooms shall be determined as follows:
- (a) Overturn the opened container, the mass of which has been previously determined, onto a sieve in such a manner that the contents are evenly distributed: Provided that --
 - (i) a 200 mm sieve shall be used if the quantity of the contents of the container is less than 1,4 kg;
 - (ii) a 300 mm sieve shall be used if the quantity of the contents of the container is 1,4 kg or more; and
 - (iii) mushrooms to which sauce adheres, shall first be rinsed with hot water to remove the sauce from the mushrooms prior to draining the mushrooms.
 - (b) Allow two minutes for draining and determine the mass of the sieve and drained mushrooms.
 - (c) The mass so obtained, minus the mass of the sieve, shall be considered to be the mass of the drained mushrooms.

(2) If the drained mass declared on the label or embossed on the container is more than the minimum drained mass prescribed in item (b)(ii) of Table 1 of the Annexure, it shall comply with the higher drained mass.

(3) Where the drained mass is indicated in these regulations as a percentage of the net mass, the net mass shall be taken as the declared net mass.

(4) In an inspection sample ten per cent of the containers may deviate with not more than five per cent from the prescribed drained mass: Provided that the average drained mass of the inspection sample is equal to or more than the prescribed drained mass.

OFFENCES AND PENALTIES

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

OTHER LEGISLATION

13. The provisions of these regulations shall be in addition to and not in substitution of regulations published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).

ANNEXURE

TABLE 1

QUALITY STANDARDS

[Regulation 4]

QUALITY FACTOR	FANCY GRADE	CHOICE GRADE	STANDARD GRADE
(a) Microbiological spoilage (maximum per production group)	0,25 %	0,25 %	0,25 %
(b) Fill of containers shall comply with at least one of the following: (i) Mushroom quantity (ii) Drained mass in the case of -- (aa) mushroom packed in brine or brine and butter (bb) creamed or savoury mushrooms	Packed to capacity 50 % of the declared net mass: Provided that if packed in brine and butter at least 3 % (m/m) butter shall be added 50 % of the declared net mass: Provided that if cheese is added to the product not less than 2 % cheese (m/m) shall be added	Packed to capacity 50 % of the declared net mass: Provided that if packed in brine and butter at least 3 % (m/m) butter shall be added 40 % of the declared net mass: Provided that if cheese is added to the product not less than 2 % cheese (m/m) shall be added	Packed to capacity 45 % of the declared net mass: Provided that if packed in brine and butter at least 3 % (m/m) butter shall be added 35 % of the declared net mass: Provided that if cheese is added to the product not less than 2 % cheese (m/m) shall be added
(c) Packing media for allowable types: (i) Buttons (ii) Whole mushrooms (iii) Mature mushrooms (flat backs) (iv) Creamed or savoury mushrooms (v) Sliced mushrooms	Packed in brine; or brine and butter * Packed in brine; or brine and butter Packed in suitable packing medium Packed in brine; or brine and butter	Packed in brine; or brine and butter Packed in brine; or brine and butter Packed in brine; or brine and butter Packed in suitable packing medium Packed in brine; or brine and butter	Packed in brine; or brine and butter Packed in brine; or brine and butter Packed in brine; or brine and butter Packed in suitable packing medium Packed in brine; or brine and butter

QUALITY FACTOR	FANCY GRADE	CHOICE GRADE	STANDARD GRADE
(vi) Pieces and stems	*	Packed in brine; or brine and butter	Packed in brine; or brine and butter
(vii) Diced stems	*	*	Packed in brine
(viii) Sliced stems	*	*	Packed in brine
(ix) Chopped and diced mushrooms	*	Packed in brine	Packed in brine
(x) Whole stems	*	*	Packed in brine
(d) Mushroom ingredient	Shall be prepared from fresh, sound and suitable cultivars of cultivated mushrooms	Shall be prepared from fresh, sound and suitable cultivars of cultivated mushrooms	Shall be prepared from fresh, sound and suitable cultivars of cultivated mushrooms
(e) Preparation	<p>(i) Shall be free from defects and blemishes</p> <p>(ii) Shall be thoroughly washed and free from grit or growth medium</p> <p>(iii) Shall be canned within 12 hours of picking, or it shall be held under suitable refrigeration and canned within 72 hours of picking</p> <p>(iv) In the case of slices only buttons and whole mushrooms shall be used.</p> <p>(v) In the case of buttons and mature mushrooms, the stems shall still be attached to the <i>pileus</i></p> <p>(vi) Shall be free from pieces in the case of buttons and mature mushrooms</p>	<p>(i) Shall be fairly free from defects and blemishes</p> <p>(ii) Shall be thoroughly washed and free from grit or growth medium</p> <p>(iii) Shall be canned within 12 hours of picking, or it shall be held under suitable refrigeration and canned within 72 hours of picking</p> <p>(iv) In the case of slices only buttons and whole mushrooms shall be used.</p> <p>(v) In the case of buttons, whole mushrooms and mature mushrooms, the stems shall still be attached to the <i>pileus</i></p> <p>(vi) Shall be fairly free from pieces in the case of buttons, whole mushrooms and mature mushrooms</p>	<p>(i) Shall be reasonably free from defects and blemishes</p> <p>(ii) Shall be thoroughly washed and free from grit or growth medium</p> <p>(iii) Shall be canned within 12 hours of picking, or it shall be held under suitable refrigeration and canned within 72 hours of picking</p> <p>(iv) In the case of slices only buttons and whole mushrooms shall be used.</p> <p>(v) In the case of buttons, whole mushrooms and mature mushrooms, the stems shall still be attached to the <i>pileus</i></p> <p>(vi) Shall be reasonably free from pieces in the case of buttons, whole mushrooms and mature mushrooms</p>

QUALITY FACTOR	FANCY GRADE	CHOICE GRADE	STANDARD GRADE
	(vii) In the case of creamed or savoury mushrooms the mushrooms used must be of a uniform style	(vii) In the case of creamed or savoury mushrooms the mushrooms used must be of a uniform style	(vii) In the case of creamed or savoury mushrooms the mushrooms used must be of a uniform style
(f) Consistency and texture (creamed and savoury mushrooms)	The product shall have a good consistency and creamy texture	The product shall have a good consistency and creamy texture	The product shall have a good consistency and creamy texture
(g) Maximum length of stems in the case of: (i) Buttons (ii) Whole and mature mushrooms, where applicable	Whole mushrooms with attached stems not exceeding 5 mm in length, measured from the bottom of the veil Whole mushrooms with attached stems cut to a length not exceeding the diameter of the <i>pileus</i> , measured from the bottom of the veil	Whole mushrooms with attached stems not exceeding 5 mm in length, measured from the bottom of the veil Whole mushrooms with attached stems cut to a length not exceeding the diameter of the <i>pileus</i> , measured from the bottom of the veil	Whole mushrooms with attached stems not exceeding 5 mm in length, measured from the bottom of the veil Whole mushrooms with attached stems cut to a length not exceeding the diameter of the <i>pileus</i> , measured from the bottom of the veil
(h) Maturity in the case of: (i) Buttons (ii) Whole mushrooms (iii) Pieces and stems (iv) Diced stems (v) Sliced stems (vi) Chopped mushrooms	Veils shall be completely intact * * * *	Veils shall be completely intact Veils may be cracked: Provided that the lamellae does not show - * * *	Veils shall be completely intact Veils may be cracked: Provided that the lamellae does not show - - - -
(i) Colour in the same container	The product shall be of a good and uniform colour	The product shall be of a good and fairly uniform colour	The product shall be of a fairly good and reasonably uniform colour

QUALITY FACTOR	FANCY GRADE	CHOICE GRADE	STANDARD GRADE
(j) Size in the same container (i) Buttons (ii) Whole and mature mushrooms, where applicable	Uniform Fairly uniform	Fairly uniform Fairly uniform	Reasonably uniform Reasonably uniform
(k) Foreign matter	None	None	None
(l) Verticilium blemish	None	None	None

- * Denotes not allowable
- Denotes no specification

TABLE 2
MAXIMUM PERMISSIBLE DEVIATIONS BY MASS
[Regulation 4(2)(d)]

QUALITY FACTOR	FANCY GRADE	CHOICE GRADE	STANDARD GRADE
(a) Maturity	6 %	12 %	15 %
(b) Preparation	5 %	15 %	25 %
(c) Sizes in the same container in the case of buttons, whole mushroom and mature mushrooms, where applicable	2 %	4 %	6 %
(d) Colour in the same container	2 %	4 %	6 %
(e) Verticillium blemish	0 %	0 %	5 %

TABLE 3
 SAMPLING OF CANNED MUSHROOMS
 [Regulation 9]

1. Net mass is equal to or less than 1 kg.		
Production group	Sample size	Acceptance number
1	2	3
4 800 or less	6	1
4 801 - 24 000	13	2
24 001 - 48 000	21	3
48 001 - 84 000	29	4
84 001 - 144 000	48	6
144 001 - 240 000	84	9
more than 240 000	126	13
2. Net mass is more than 1 kg but not more than 4,5 kg		
Production group	Sample size	Acceptance number
1	2	3
2 400 or less	6	1
2 401 - 15 000	13	2
15 001 - 24 000	21	3
24 001 - 42 000	29	4
42 001 - 72 000	48	6
72 001 - 120 000	84	9
more than 120 000	126	13
3. Net mass more than 4,5 kg		
Production group	Sample size	Acceptance number
1	2	3
600 or less	6	1
601 - 2 000	13	2
2 001 - 7 200	21	3
7 201 - 15 000	29	4
15 001 - 24 000	48	6
24 001 - 42 000	84	9
more than 42 000	126	13