
GOVERNMENT NOTICE

DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

No. R. 112**14 February 2014**

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

REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF DRY BEANS 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;
- (b) determined that the said regulations shall come into operation on the date of publication; and
- (c) repealed Government Notices Nos. R. 2700 of 15 December 1989, R. 2701 of 15 December 1989, R. 509 of 15 March 1991, R. 897 of 5 July 2002 and R. 1280 of 29 October 2004.

SCHEDULE

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Definition

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 –

"address" means a physical address in the Republic of South Africa and includes the street or road number or name, and the name of the town, village or suburb and, in the case of a farm, the name or number of the farm and of the magisterial district in which it is situated;

"broken or split dry beans" means dry beans of which the cotyledons are separated to such extent that they are nowhere attached by the testa or otherwise, and also portions of dry beans and cotyledons that are broken off;

"broken testa" means the testa of a dry bean of which a portion or the whole is broken off;

"bulk quantity" means a quantity of more than 10 kg of dry beans, whether sold in containers or in loose quantities;

"consignment" means –

- (a) a quantity of dry beans of the same grade, which belongs to the same producer, importer, packer or owner and which is delivered at a particular time under cover of the same consignment note, delivery note or receipt, or is delivered by the same vehicle or bulk container; or
- (b) if such quantity is divided into different types of packaging, size groups, colour groups, type groups or grades, each quantity of such different types of packaging, grades, type groups, size groups or colour groups;

"container" means a bag or other suitable packing unit in which dry beans in retail or bulk quantities are packed;

"colour group" means a colour group contemplated in regulation 7;

"cracked testa" means the testa of a dry bean that is clearly cracked for more than one third of the circumference thereof, measured square on the longitudinal axis;

"dangerous object" means any object or part thereof which, when occurring in dry beans, may be dangerous in the handling or consumption of those dry beans;

"defective dry beans" means dry beans or portions of cotyledons of dry beans of which the quality or colour are adversely affected to the extent in which they are damaged, contaminated, speckled, stained, discoloured or have sprouted, but not also –

- (a) broken or split dry beans; or
- (b) dry beans which are healthy and normal except for –
 - (i) a discolouration of the hilum or veins;
 - (ii) a slight discolouration of the testa due to oxidation;
 - (iii) light spots or slight speckling that is limited to the testa;
 - (iv) pin pricks;
 - (v) dents or hollows in the cotyledons; or
 - (vi) a broken, cracked or wrinkled testa;

"**dry beans**" means the threshed ripe seeds of plants of *Phaseolus acutifolius* A. Gray (teparty dry beans), *P. coccineus* L. (kidney beans) and *P. vulgaris* L. (dry beans or garden beans);

"**foreign matter**" means any matter other than dangerous objects, stones and sand and noxious seeds that does not naturally form part of dry beans;

"**grade**" means a grade contemplated in regulation 3;

"**insect**" means an insect of a kind that is detrimental to dry beans, irrespective of the stage of development thereof and whether it is alive or dead;

"**main panel**" means that part of the label or container bearing the trade mark, trade name or brand name in greatest prominence and any other part of the label or container bearing the trade mark, trade name or brand name in equal prominence;

"**not-true- to type dry beans**" means dry beans that do not have the normal characteristic shape, size, colour or other properties of a particular cultivar;

"**noxious seeds**" means the seeds or bits of seeds of plant species that may present a hazard to human or animal health when consumed, including seeds of *Argemone mexicana* L., *Convolvulus* spp., *Crotalaria* spp., *Canavalia ensiformis*, *Datura* spp., *Ipomoea purpurea*, *Lolium temulentum*, *Ricinus communis* or *Xanthium* spp.;

"**packer**" means a person or company packing dry beans for sale, a person/company on whose behalf dry beans are packed for sale and a person/company importing dry beans for sale;

"**retail quantity**" means a quantity of 10 kg or less of dry beans, irrespective of whether sold in containers or in loose quantities;

"**size group**" means a size group contemplated in regulation 6;

"**stained**" means the occurrence on the testa of dry beans with a white or any other ground colour, of small to fair sized natural stains which may be of any colour;

"**speckled**" means the scattered occurrence, over the whole surface of the testa, of speckles and natural stains of a colour other than the ground colour of the testa;

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

"**type group**" means a type group contemplated in regulation 8; and

"**wrinkled testa**" means the testa of a dry bean that shows three or more intense pleats.

Restrictions on sale of dry beans

2. (1) A person may not sell dry beans in the Republic of South Africa –
 - (a) unless the dry beans concerned are sold according to the grades prescribed in regulation 3;
 - (b) unless the dry beans concerned comply with the standards for grades prescribed in regulation 4;
 - (c) unless the dry beans concerned are packed in containers and in the manner prescribed in regulations 9 and 10;
 - (d) unless the dry beans concerned are marked with the particulars and in the manner prescribed in regulations 11, 12, 13 and 14;

- (e) if the dry beans concerned contain a substance that has thus been prescribed as a substance that they should not contain;
- (f) if the dry beans concerned are packed in a container or in such a manner that has thus been prescribed as a container or a manner in which they shall not be packed; and
- (g) if the dry beans concerned are marked with particulars or in such a manner that has thus been prescribed as particulars or manner in which they shall not be marked.

(2) 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 subregulation (1).

PART I QUALITY STANDARDS

Grades of dry beans

3. Dry beans shall for the purpose of the application of these regulations be –
- (a) graded as Grade 1, Grade 2, Grade 3 or Split beans in the case of dry beans in retail quantities: Provided that dry beans in retail quantities of 5 kg and more may also be graded as Undergrade; and
 - (b) graded as Canning Grade, Grade 1, Grade 2, Grade 3, Grade 4 or Undergrade in the case of dry beans in bulk quantities.

Standards for grades

4. (1) A consignment of dry beans that is graded as Canning Grade, Grade 1, Grade 2, Grade 3 or Grade 4, shall –
- (a) be of a particular size group;
 - (b) be of a particular colour group;
 - (c) be of a particular type group;
 - (d) be free from a musty or other unacceptable odour;
 - (e) be free from any dangerous objects;
 - (f) be free from dry beans in or on which a substance occurs that renders it unsuitable for human consumption or for processing into healthy food or feed;
 - (g) be free from noxious seeds: Provided that a consignment of dry beans in bulk quantities may contain noxious seeds to the extent permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);
 - (h) be free from insects;
 - (i) be free from organisms of phytosanitary importance as determined by Agricultural Pest Act, 1983 (Act No. 36 of 1983);
 - (j) have a moisture content of not more than 14 per cent; and
 - (k) not have a deviation specified in column 1 of Table 1(a) to a larger extent than the applicable maximum specified in column 2, 3, 4, 5 or 6 of Table 1(a) opposite thereto for the grade concerned.

- (2) A consignment of dry beans that is graded as Split beans shall –
- (a) comply with the requirements set out in subregulation 1 (d), (e), (f), (g), (h) and (i);
 - (b) have a moisture content of not more than 12 per cent; and
 - (c) not have a deficiency specified in column 1 of Table 1(b) to a larger extent than the applicable maximum specified in column 5 of Table 1(b) opposite thereto for the grade concerned.

(3) A consignment of dry beans which does not comply with the requirements specified in subregulations (1) and (2) shall be graded as Undergrade: Provided that in the case of dry beans in retail quantities of 5 kg and more which are graded as Undergrade shall –

- (a) comply with the requirements set out in subregulation (1) (d), (e), (f), (g), (h) and (i); and
- (b) not have a deviation specified in column 1 of Table 1(b), to a larger extent than the applicable maximum specified in column 6 of the table opposite thereto for the grade concerned.

Size groups

6. (1) The size groups for dry beans are Large, Medium and Small.
- (2) A consignment of dry beans shall be deemed to be –
- (a) of the size group Large if the count thereof is 140 or less per 100 gram;
 - (b) of the size group Medium if the count thereof is more than 140 but not more than 365 per 100 gram; and
 - (c) of the size group Small if the count thereof is more than 365 but not more than 760 per 100 gram.

Colour groups

7. (1) The colour groups for dry beans shall be White, Red speckled, Non-red speckled and Coloured.
- (2) A consignment of dry beans shall be deemed to be –
- (a) of the colour group White if the colour of the testa of those dry beans can be described as white;
 - (b) of the colour group Red speckled if the testa of those dry beans –
 - (i) have fully or partly, pinkish red to reddish purple speckles;
 - (ii) have a white or light background colour and a pinkish red to reddish purple secondary colour; or
 - (iii) have a pinkish red to reddish purple colour inversion;
 - (c) of the colour group Non-red speckled if the testa of those dry beans have speckles or a colour inversion of any colour other than pinkish red or reddish purple; and
 - (d) of the colour group Coloured if those dry beans are not of a colour group

contemplated in paragraph (a), (b) or (c).

Type groups

8. (1) The type groups for dry beans are –
- (a) Kidney beans;
 - (b) Medium white beans;
 - (c) Small white beans;
 - (d) Red Speckled beans;
 - (e) Non-red speckled beans;
 - (f) Half-white beans;
 - (g) Coloured beans;
 - (h) Green beans;
 - (i) Mixed dry beans; and
 - (j) Unspecified dry beans.
- (2) For the purpose of subregulation (1) –
- (a) "Half white beans" means dry beans of which approximately one half of the testa is predominantly white or dull white, irrespective of whether a few small speckles occur thereon, and of which the remaining portion is speckled, naturally stained or coloured;
 - (b) "Green beans" means the threshed ripe seed of *Phaseolus vulgaris* L. (garden beans);
 - (c) "Mixed dry beans" means dry beans that consist of a mixture of different size groups, colour groups or type groups; and
 - (d) "Unspecified dry beans" means dry beans of a type group that is not otherwise specified in subregulation (1).

**PART II
REQUIREMENTS FOR CONTAINERS**

9. The containers in which dry beans are packed shall –
- (a) be manufactured from a material that –
 - (i) will protect the contents thereof against contamination; and
 - (ii) will not impart any undesirable flavour or odour to the contents thereof;
 - (b) be so strong that they will not tear or break during normal storage, handling and transport practices;
 - (c) be whole, with the exception of grain probe marks: Provided that grain probe marks will not be permissible in the case of dry beans in retail quantities;
 - (d) be clean;

- (e) be closed properly in a manner permitted by the nature thereof; and
- (f) in the case of dry beans in retail quantities, be previously unused for any purpose.

PART III PACKING REQUIREMENTS

10. (1) Dry beans of different grades, size groups, colour groups and type groups shall, except in the case of the type group known as Mixed dry beans, not be packed in the same container.
- (2) Undergrade dry beans shall be packed in containers each containing 5 kg of dry beans or more.

PART IV MARKING REQUIREMENTS

Marking of containers in which dry beans in retail quantities are packed

11. (1) (a) Subject to the provisions of paragraphs (b) and (c), the main panel of a container in which dry beans are sold in retail quantities shall be marked with –
- (i) the applicable type group of those dry beans or, in the case of dry beans that have been imported, the common name;
 - (ii) the applicable size group, colour group and grade of those dry beans; and
 - (iii) the expression "Product of" followed by the full name of the country of origin thereof or the country of origin declared as required by regulations published in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972): Provided that this information may be placed in any conspicuous place on the container.
- (b) The indications of size group or colour group may be omitted if –
- (i) dry beans destined for sale in the retail trade are packed in containers of which a continuous portion of at least 25 per cent of the area thereof is transparent; or
 - (ii) the type group is descriptive of the size group and colour group.
- (c) Any illustration on the container shall be an accurate representation of the contents, especially as far as colour group and type group are concerned.
- (2) Each container in which dry beans in retail quantities are sold shall, either on the main panel or in another conspicuous place thereon, be marked with –
- (a) the name and address of the packer of those dry beans as required by regulation 13; and
 - (b) the nett mass of the dry beans packed therein, as required in terms of the Trade Metrology Act, 1973 (Act No. 77 of 1973).
- (3) The particulars referred to in sub regulations (1) and (2) shall be indicated in detached letters and figures –
- (a) that are in each separate case of the same colour, type and size;
 - (b) that appear on a uniform and contrasting background;

- (c) that are clearly legible; and
- (d) of which the vertical height is at least 4mm: Provided that the indication of the name and address of the packer may be of a vertical height of at least 2 mm.

(4) If any word or expression that is not a trade-mark or is not required in terms of these regulations or another law, appears on a container in which dry beans intended for sale in the retail trade are packed, the vertical height of the letters and figures used to indicate the particulars referred to in subregulation (1)(a) shall, subject to the provisions of subregulation (3)(d), be at least the same as that of the largest letter or figure in the word or expression concerned.

(5) The provisions of this regulation shall *mutatis mutandis* apply to particulars that are indicated on an outer container in which one or more separate containers of dry beans intended for sale in the retail trade are packed, if such outer container is not transparent.

- (6) When dry beans destined for sale in the retail trade are kept for sale in loose quantities –
- (a) dry beans of different size groups, colour groups, type groups and grades shall, except in the case of the type group known as Mixed dry beans, be kept separate; and
 - (b) the particulars referred to in subregulation (1)(a) shall be indicated in clearly legible letters and figures with a vertical height of at least 10,0 mm on a notice board displayed at those dry beans.

Marking of containers in which dry beans are packed in bulk quantities

12. (1) Subject to the provisions of subregulation (2), each container containing dry beans in bulk, shall be marked clearly and legibly with block letters on the container itself, or on a label affixed to the container, with the following particulars:

- (a) the name of the product shown at least as dry beans;
- (b) the grade of the dry beans: Provided that the grade may be omitted if the dry beans have not been graded yet, or in the case of imported dry beans destined for any other purpose other than sale;
- (c) a lot identification;
- (d) the country of origin; and
- (e) the name and address of the packer of those dry beans as required by regulation 13: Provided that the lot identification and the name and address of the packer may be replaced by an identification mark, if such identification mark is clearly identifiable with the accompanying sales documents.

(2) The country of origin may in the case of dry beans destined for further processing or packing be omitted, if the country of origin is indicated on the accompanying sales documents.

Indications of packer

13. (1) The name of the packer of dry beans that is marked on the container shall –
- (a) consist of the initials and surname or trade name of the packer or, in the case of imported dry beans in retail quantities, the importer concerned; and
 - (b) be preceded by the expression "Packed by" or, in the case of dry beans imported

into the Republic in the containers in which they are to be sold in the retail trade, be preceded by the expression "Imported by".

(2) The address as contemplated in regulation 1 of the packer of dry beans and be marked on such container immediately after the particulars referred to in subregulation (1)

(3) If dry beans are packed on behalf of a person –

- (a) the particulars referred to in subregulation (1) (a) shall be replaced by the initials and surname or trade name of the person on whose behalf those dry beans have been packed;
- (b) such initials and surname or trade name shall be preceded by the expression "packed for";
- (c) the address of such person shall be indicated in the place of the address referred to in subregulation (2);
- (d) such address shall be marked on a container immediately after the particulars referred to in paragraph (a); and
- (e) the particulars referred to in sub regulations (1) and (2) may in addition thereto be marked on a container.

Restricted particulars

14. (1) No indication of a size group, colour group, type group or grade other than the applicable size group, colour group, type group or grade shall appear on a container in which dry beans are packed, or on a label attached to such container.

(2) The expression "Selected" or "Hand selected", or any other word or expression which directly or by implication creates or may create the impression that dry beans are of a special or particular quality shall not appear on a container in which dry beans are packed, or on a label attached to such container: Provided that the expression "hand pick selected" may be used in the case of dry beans sold in bulk if the dry beans –

- (a) comply with at least grade 1 specifications; and
- (b) had been selected by hand.

(3) No word, mark, illustration, depiction or any other method of expression that constitutes a misrepresentation, or directly or by implication creates or may create a misleading impression regarding the quality, nature, size group, colour group, type group or grade of dry beans shall appear on a container in which dry beans are packed, or on a label attached to such container.

(4) The provisions of this regulation shall apply *mutatis mutandis* to particulars that appear on –

- (a) a notice board displayed at dry beans that are kept for sale in loose quantities; and
- (b) an outer container in which one or more separate containers of dry beans are packed, if such outer container is not transparent.

PART V SAMPLING

General

15. (1) A sample of a consignment shall for the purpose of the application of these regulations be obtained by --

- (a) in the case of dry beans in retail quantities packed in containers,
 - (i) randomly taking from the number of containers concerned, at least the applicable number of containers mentioned in column 2 of Table 3; and
 - (ii) sampling each such container by hand in the manner set out in regulation 16: Provided that if the contents per container is 1 kg or less, the total contents of all the chosen containers will be taken as sample;
- (b) in the case of dry beans in retail quantities that are kept for sale in loose quantities, obtaining a sample by hand in the manner contemplated in regulation 16;
- (c) in the case of dry beans in bulk quantities --
 - (i) sampling each bag in that consignment with a grain probe as contemplated in regulation 17 or by hand as contemplated in regulation 16 if it consists of 100 bags or less; or
 - (ii) by otherwise sampling at least 50 per cent of the bags in that consignment chosen at random, but with a minimum of 100 bags, with a grain probe as contemplated in regulation 17 or by hand as contemplated in regulation 16.

(2) A sample taken in terms of this regulation is considered to be representative of the consignment from which it was obtained.

Sampling by hand

16. The sampling of a consignment by hand shall be done as follows:

- (a) Open the containers in the consignment that have to be sampled.
- (b) Insert the open hand into such container or the loose quantity concerned, close the hand into a fist and thereafter withdraw it evenly.
- (c) Place the material encased by the hand in a suitable collecting tray.
- (d) Repeat the procedure described in paragraph (b) alternately at various depths in the containers or loose quantities concerned, and place the material thus removed in the collecting tray referred to in paragraph (c).
- (e) Take more or less equal quantities of material from each container that is sampled.
- (f) Thoroughly mix the material thus obtained and divide it by means of a sample divider to obtain a sample of at least 1 kg of material.

Sampling by means of a bag probe

17. (1) The sampling of a consignment with a bag probe shall be done as follows:

- (a) Insert the tapered end of the bag probe upwards at an angle of approximately 30 degrees with the horizontal line and with the aperture thereof downwards, into each bag chosen from that consignment, until the end of the probe is approxi-

mately in the centre of such bag.

- (b) Turn the bag probe through approximately 180 degrees on the longitudinal axis thereof so that the aperture thereof is at the top.
 - (c) Extract the bag probe with a slight shaking movement and diminishing speed from the bag concerned to ensure that a relatively even and increasing flow of beans is maintained through the aperture thereof closer to the side of the bag.
 - (d) Place the material contained in the bag probe in a suitable container.
 - (e) Repeat the procedure described in subparagraphs (a), (b) and (c) alternately at various depths of alternate bags and place the material thus removed in the container referred to in subparagraph (d).
 - (f) Take approximately equal quantities of material from each bag that is sampled.
 - (g) Thoroughly mix the material thus obtained and divide it by means of a sample divider to obtain a sample of at least 1 kg.
- (2) A bag probe referred to in subregulation (1) shall –
- (a) be long enough so that the end thereof will reach the centre of a bag being sampled; and
 - (b) consist of a cylindrical tube with a tapered end and an aperture close to the end.

Sampling if contents differ

18. If it appears from an examination of the dry beans in bulk quantities taken in accordance with regulation 15 from different bags in a consignment, that the contents of those bags differ conspicuously –

- (a) the respective bags shall be separated from each other;
- (b) all the bags in the consignment concerned shall be sampled in order to make such classification and separation; and
- (c) each group of bags of a particular grade in the consignment concerned shall for the purposes of these regulations be deemed to be a separate consignment.

PART VI

DETERMINATION OF OTHER SUBSTANCES, COLOUR GROUP, SIZE GROUP AND TYPE GROUP

Determination of colour group, smell, dangerous objects, harmful substances, noxious seeds and insect content

19. A consignment or a sample of a consignment shall be assessed sensorially or be chemically analyzed in order to determine –

- (a) colour group thereof;
- (b) whether it has a musty or other unacceptable smell;
- (c) whether it contains any dangerous objects;
- (d) whether it contains dry beans in or on which a substance occurs that renders it unsuitable for human consumption or for processing into healthy food or feed;
- (e) whether it contains any noxious seeds; and

- (f) whether it contains any insects.

Determination of size group

20. The size group of a consignment of dry beans shall be determined as follows:

- (a) Prepare a working sample by measuring off from a portion of the sample, from which all stones and sand, foreign matter, defective dry beans, broken and split dry beans and dry beans not true to type have been removed, three quantities of 100 gram each.
- (b) Count the number of dry beans in each portion of the working sample and calculate the average of such numbers.
- (c) Such average shall represent the count per 100 gram of the consignment concerned and is used to determine the size group thereof.

Determination of type group

21. The type group of a consignment of dry beans shall be determined according to the colour group thereof as determined in regulation 19, and the size group thereof as determined in terms of regulation 20.

Determination of foreign matter content and stones and sand content

22. The percentages of foreign matter and stones and sand in a consignment of dry beans shall be determined as follows:

- (a) Prepare a working sample by measuring off 1 kg of material from the sample of the consignment.
- (b) Remove all the foreign matter and all the stones and sand separately from the working sample and determine the respective masses thereof.
- (c) Express the masses thus determined, as percentages of 1 kg.
- (d) Such percentages shall respectively represent the percentage of foreign matter and the percentage of stones and sand in the consignment concerned.

**PART VII
DETERMINATION OF DEVIATIONS**

Determination of defective dry bean and broken or split dry bean content

23. The percentages of defective dry beans and broken or split dry beans in a consignment of dry beans shall be determined as follows:

- (a) Prepare a working sample by measuring off from the quantity of the sample from which the stones, sand and foreign matter have been removed as contemplated in regulation 22 –
 - (i) 400 grams of dry beans if it is of the size group Large;
 - (ii) 200 grams of dry beans if it is of the size group Medium; and
 - (iii) 100 grams of dry beans if it is of the size group Small.
- (b) Remove all defective dry beans and broken or split dry beans separately from the working sample and determine the respective masses thereof.
- (c) Express the respective masses thus determined, as percentages of the mass of the applicable working sample.

- (d) Such percentages shall respectively represent the percentage of defective dry beans and the percentage of broken and split dry beans in the consignment concerned.

Determination of not- true- to type dry bean content

24. The percentage of not-true-to type dry beans in a consignment of dry beans shall be determined as follows:

- (a) Prepare a working sample by measuring off from the quantity of the sample from which the defective and split and broken dry beans have been removed as contemplated in regulation 23 –
 - (i) 200 grams of dry beans if it is of the size group Large;
 - (ii) 100 grams of dry beans if it is of the size group Medium; and
 - (iii) 50 grams of dry beans if it is of the size group Small.
- (b) Remove all not true to type dry beans from the working sample and determine the mass thereof.
- (c) Express the mass thus determined as a percentage of the mass of the applicable working sample.
- (d) Such percentage shall represent the percentage of not true to type dry beans in the consignment concerned.

Determination of dry bean content with a broken and wrinkled or cracked testa

25. The percentages of dry beans with a broken testa and with a wrinkled or cracked testa in a consignment of dry beans shall be determined as follows:

- (a) Prepare a working sample by returning all the not- true to type dry beans removed in terms of regulation 24 to the working sample contemplated in that regulation.
- (b) Remove all the dry beans with a broken testa and all the dry beans with wrinkled or cracked testa separately from the working sample and determine the respective masses thereof.
- (c) Express the masses thus determined, as percentages of the mass of the applicable working sample.
- (d) Such percentages shall respectively represent the percentage of dry beans with a broken testa and the percentage of dry beans with a wrinkled or cracked testa in the consignment concerned.

**PART VIII
MOISTURE CONTENT**

Determination of moisture content

26. (1) The moisture content of a consignment of dry beans shall be determined with an instrument that is suitable for the purpose, has been calibrated for dry beans and according to the directions for use of the instrument concerned: Provided that the results thus obtained are in accordance ($\pm 0,3$ per cent) with the results obtained by the 72 hour oven dried method. [AACC (American Association of Cereal Chemists) Method 44/15A/1981].

(2) If the Marconi moisture meter is used, the moisture content of a consignment shall be determined as follows:

- (a) Prepare a working sample by measuring off from a portion of a sample from which all stones and sand, foreign matter, defective dry beans and not true to type dry beans have been removed, a quantity of between 70 and 80 gram of dry beans.
- (b) Grind the working sample in a coffee-mill or other similar mill that is suitable for this purpose –
 - (i) at a rate that will prevent the temperature of the milled dry beans from increasing with more than 10°C during the grinding process; and
 - (ii) so fine that at least 90 percent of the milled working sample will pass through a 1,60 mm sieve and not more than 25 percent thereof will pass through a 1,12 mm sieve.
- (c) Determine the fineness of the milled working sample by –
 - (i) determining the mass thereof;
 - (ii) placing it on a 1,60 mm sieve fitted in series onto a 1,12 mm sieve and a collecting tray, and sifting it thoroughly;
 - (iii) determining the masses of the quantities of material that respectively remained on and passed through the 1,12 mm sieve; and
 - (iv) expressing such masses as percentages of the mass determined in terms of subparagraph (i): Provided that milled testa shall not be considered when calculating the respective percentages.
- (d) If necessary, repeat the grinding process with the portion of the working sample remaining on the 1,60 mm sieve in order to obtain the fineness of the working sample as required in paragraph (b)(ii).
- (e) Mix the sample thoroughly by turning and tilting it simultaneously in a suitable dry glass jar for at least 30 seconds.
- (f) Set up the instrument to be used for the moisture determination, in accordance with the directions for use thereof, test the operation thereof and calibrate it if necessary.
- (g) From the ground working sample, measure off a quantity as required in the directions for use of the instrument concerned, prepare it in accordance with the directions for use and thereafter place it in the instrument.
- (h) Activate the instrument concerned in accordance with the directions for use thereof, take the reading on the instrument and at the same time determine the ambient temperature in the immediate vicinity of the instrument.
- (i) Convert the reading on the instrument, if applicable, to a percentage in the manner set out in the directions for use thereof.
- (j) Such percentage shall, subject to the provisions of sub regulations (2) and (3),

represent the moisture content of the consignment concerned.

(3) The reading taken in terms of subregulation (1) and corresponding with a figure specified in column 1 of Table 2 shall –

- (a) in the case of dry beans of *Phaseolus coccineus* L. (kidney beans), be converted to the applicable percentage specified in column 2 of the said table opposite thereto; and
- (b) otherwise be converted to the applicable percentage specified in column 3 of the said table opposite thereto.

(4) The percentage thus converted in subregulation (2) shall be adjusted for temperature by –

- (a) increasing that percentage by 0,05 per cent for each degree Celsius that the ambient temperature is lower than 20°C; and
- (b) reducing that percentage by 0,05 per cent for each degree Celsius that the ambient temperature is higher than 20°C.

(5) A sieve that is used for the purpose of subregulation (1) (b) and (c) shall be provided with a polyester or wire mesh that –

- (a) in the case of a 1,60 mm sieve, have apertures of 1,60 mm by 1,60 mm and wires with a diameter of 0,45 mm; and
- (b) in the case of a 1,12 mm sieve, have apertures of 1,12 mm by 1,12 mm and wires with a diameter of 0,40 mm.

PART IX REPETITION OF DETERMINATIONS

27. (1) A determination in terms of these regulations shall be repeated with a further sample of the same quantity of dry beans if the result of the first determination would result in the regrading of the quantity of dry beans concerned.

(2) If a determination is so repeated, the average of the results of the first and second determination shall be deemed to be the result of the determination concerned.

- (3) (a) If the moisture content of a sample as determined in terms of regulation 26 deviates by 0,3 per cent or more from the maximum permissible moisture content, a second determination of the moisture content shall be carried out with the same sample.
- (b) If the result of a further determination referred to in paragraph (a) has the effect that a consignment has to be graded as Undergrade, a further determination of the moisture content thereof shall be carried out with a further sample of the consignment concerned.

(4) The average result of all the determinations of a particular nature with a sample shall be deemed to be the result of the determination concerned.

PART X

Offences and penalties

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

TABLE 1 (a)
EXTENT TO WHICH CERTAIN DEVIATIONS MAY OCCUR IN DRY BEANS WHICH ARE SOLD IN BULK QUANTITIES

[Reg. 4(1)(k), 4(2)(c) and 4(3)(b)]

1	2	3	4	5	6	7	8
NATURE OF DEVIATION	Maximum extent to which deviations may occur in dry beans intended for grading as						
	Canning Grade	Grade 1	Grade 2	Grade 3	Grade 4	Split beans	Under grade
1. Foreign matter [Reg 22]	0,1%	0,25%	0,7%	1,5%	2,0%	-	*
2. Stones and sand [Reg 22]	None	None	0,2%	0,6%	0,8%	-	*
3. Total of foreign matter, stones and sand: Provided that such deviations are within the specified limits.	0,1%	0,25%	0,7%	1,5%	2,0%	-	*
4. Defective dry beans [Reg. 23]	1,5%	3,0%	10,0%	20,0%	25,0%	-	*
5. Broken or split dry beans [Reg 23]	1,0%	5,0%	7,0%	10,0%	15,0%	-	*
6. Total of defective and broken or split dry beans and in the case of Canning Grade also include foreign matter, stones and sand: Provided that such deviations are within the specified limits.	2,0%	5,0%	15,0%	25,0%	25,0%	-	*

1	2	3	4	5	6	7	8
NATURE OF DEVIATION							
Maximum extent to which deviations may occur in dry beans intended for grading as							
	Canning Grade	Grade 1	Grade 2	Grade 3	Grade 4	Split beans	Under grade
7. Not true to type dry beans (not applicable to type group Mixed dry beans) [Reg 24]	0,2%	1,0%	2,5%	5,0%	7,5%	-	*
8. Dry beans with a broken testa [Reg 25]							
(a) Phaseolus coccineus L. (Kidney beans in bulk quantities):	-	8,0%	12,5%	20,0%	25,0%	-	*
(b) Other dry beans in bulk quantities	5,0%	5,0%	7,5%	10,0%	10,0%	-	*
9. Dry beans with a wrinkled or cracked testa [Reg 25]							
(a) Phaseolus coccineus L. (Kidney beans)	-	30,0%	50,0%	60,0%	75,0%	-	*
(b) Other dry beans	5,0%	20,0%	30,0%	40,0%	45,0%	-	*
10. Total of dry beans with a broken and a wrinkled or cracked testa: Provided that such deviations are within the specified limits.							
(a) Phaseolus coccineus L. (Kidney beans)	-	30,0%	50,0%	60,0%	60,0%	-	*
(b) Other dry beans.	5,0%	20,0%	30,0%	40,0%	45,0%	-	*

Explanatory note/Verduidelikende nota:

- means not applicable / beteken nie van toepassing

* means no limit / beteken geen bep

TABLE 1(b)
EXTENT TO WHICH CERTAIN DEVIATIONS MAY OCCUR IN DRY BEANS WHICH ARE SOLD IN RETAIL QUANTITIES

[Reg.4(1) (k); 4(2)(c)and 4(3)(b)]

1	2	3	4	5	6
NATURE OF DEVIATION	Maximum extent to which deviations may occur in dry beans intended for sale grading as--				
	Grade 1	Grade 2	Grade 3	Split beans	Under grade
1. Foreign matter [Reg 22]	0,25%	0,7%	1,5%	1,5%	1,5%
2. Stones and sand [Reg 22]	None	0,2%	0,6%	0,6%	0,6%
3. Total of foreign matter, stones and sand: Provided that such deviations are within the specified limits	0,25%	0,7%	1,5%	1,5%	1,5
4. Defective dry beans [Reg. 23]	3,0%	10,0%	20,0%	20,0%	*
5. Broken or split dry beans [Reg.23]	5,0%	12,0%	15,0%	15% only broken dry beans	*
6. Total of defective and broken or split dry beans and in the case of Canning Grade also include foreign matter, stones and sand: Provided that such deviations are within the specified limits.	5,0%	15%	20%	20%	*
7. Not- true -to type dry beans (not applicable to type group Mixed dry beans) / Nie -tipe-egte droëbone (nie op tipegroep Gemeng van toepassing nie) [Reg 24]	1,0%	2,5%	5,0%	*	*

1	2	3	4	5	6
NATURE OF DEVIATION	Maximum extent to which deviations may occur in dry beans intended for sale grading as--				
	Grade 1	Grade 2	Grade 3	Split beans	Under grade
8. Dry beans with a broken testa: [Reg 25]					
(a) <i>Phaseolus coccineus</i> L. (Kidney beans)	10,0%	15,0%	20,0%	-	*
(b) Other dry beans	5,0%	10,0%	15,0%	-	*
9. Dry beans with a wrinkled or cracked testa: [Reg 25]					
(a) <i>Phaseolus coccineus</i> L. (Kidney beans)	35,0%	60,0%	75,0%	-	*
(b) Other dry beans/Ander droëbone	20,0%	35,0%	45,0%	-	*
10. Total of dry beans with a broken and a wrinkled or cracked testa: Provided that such deviations are within the specific limits					
(a) <i>Phaseolus coccineus</i> L. (Kidney beans)	35,0%	60,0%	75,0%	-	*
(b) Other dry beans/Ander droëbone	20,0%	35,0%	45,0%	-	*

Explanatory note/Verduidelikende nota:

- means not applicable / beteken nie van toepassing
- * means no limit / beteken geen beperking

TABLE 2
CONVERSION OF DIAL READINGS TO PERCENTAGE MOISTURE

[Reg. 26(3), (4)]

Dial reading	Converted percentage in the case of -	
	Phaseolus coccineus L. Kidney beans	Other dry beans
1	2	3
0	10,1	10,7
1	10,2	10,8
2	10,4	10,9
3	10,5	11,0
4	10,6	11,1
5	10,7	11,3
6	10,8	11,4
7	10,9	11,5
8	11,0	11,6
9	11,1	11,7
10	11,2	11,9
11	11,3	12,0
12	11,4	12,1
13	11,5	12,2
14	11,6	12,3
15	11,7	12,4
16	11,8	12,6
17	11,9	12,7
18	12,0	12,8
19	12,1	12,9
20	12,2	13,0
21	12,3	13,2
22	12,5	13,3
23	12,6	13,4
24	12,7	13,5

Dial reading	Converted percentage in the case of -	
	Phaseolus coccineus L. Kidney beans	Other dry beans
1	2	3
25	12,8	13,6
26	12,9	13,7
27	13,0	13,9
28	13,1	14,0
29	13,2	14,1
30	13,3	14,2
31	13,4	14,3
32	13,5	14,5
33	13,6	14,6
34	13,7	14,7
35	13,8	14,8
36	13,9	14,9
37	14,0	15,0
38	14,1	15,2
39	14,2	15,3
40	14,3	15,4
41	14,4	15,5
42	14,6	15,6
43	14,7	15,8
44	14,8	15,9
45	14,9	16,0
46	15,0	16,1
47	15,1	16,2
48	15,2	16,3
49	15,3	16,5
50	15,4	16,6

TABLE 3

FREQUENCY OF SAMPLING

Number of containers comprising quantity of dry beans	Minimum number of containers to be selected at random
1	2
Less than 10	2
10 – 50	4
More than 50.....	6

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