

## DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

NO. 45

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AGRICULTURAL PRODUCT STANDARDS ACT, 1990  
(ACT No.119 OF 1990)REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF SUNFLOWER SEED  
INTENDED FOR SALE IN THE REPUBLIC OF SOUTH AFRICA

The Minister of Agriculture, Forestry and Fisheries under section 15 of the Agricultural Product Standards Act 119 of 1990, has

- (a) made the regulations in the Schedule;
- (b) determined that the said regulations shall come into operation on the date of publication thereof; and
- (c) read together with section 3(1) of the said Act, repealed the Regulations published by Government Notice No. R 477 of 20 June 2014.

## 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--

"**animal filth**" means dead rodents, dead birds and dung;

"**bag**" means a bag manufactured from--

- (a) jute or phormium or a mixture of jute and phormium; or
- (b) polypropylene that complies with SANS specification CKS632 1246: 2012;

"**bulk container**" means any vehicle or container in which bulk sunflower seed is transported or stored;

"**consignment**" means--

- (a) a quantity of sunflower seed of the same class, which belongs to the same owner, delivered at any one time under the same consignment note, delivery note or receipt note, or delivered by the same vehicle or bulk container, or loaded from the same bulk storage structure or from a ship's hold; or
- (b) in the case where a quantity referred to in paragraph (a), is subdivided into a grade, each such quality of such grade.

"**container**" means a bag or a bulk container;

"**damaged sunflower seed**" means sunflower seed or portion thereof which is visibly discoloured as a result of external heat or heating due to internal fermentation;

"**foreign matter**" means--

- (a) loose and empty shells above the sieve that occur in the consignment concerned; and
- (b) all matter other than sunflower seed and the achene of sunflower seed above the standard sieve. Coal, dung, glass and metal shall not be present in the consignment at all.

"**insect**" means any live grain insect that is injurious to stored sunflower seed as well as other grain, irrespective of the stage of development of that insect;

"**poisonous seeds**" mean seeds or part of seeds of plant species that in terms of the Foodstuffs Cosmetics and Disinfectants Act 64 of 1972, may represent a hazard to human or animal health when consumed, including seeds of *Argemone mexicana* L, *Convolvulus* spp., *Crotalaria* spp., *Datura* spp., *Ipomoea* spp., *Lolium temulentum*, *Ricinus communis* or *Xanthium* spp;

"**sclerotia**" means hard masses of fungal tissue produced by fungus *Sclerotinia sclerotiorum*. The sclerotia vary in size and form and consist of a dark black exterior, a white interior and a rough surface texture;

"**screenings**" means all material that passes through a standard sieve;

"**standard sieve**" means a slotted sieve--

- (a) with a flat bottom of metal sheet of 1,0 mm thickness with apertures 12.7 mm long and 1.8 mm wide with rounded ends ( $\pm 0.03$  mm). The spacing between the slots in the same row must be 2.43 mm wide and the spacing between the rows of slots must be 2.0 mm wide. The slots must be alternately oriented with a slot always opposite the solid inter segment of the next row of slots;
- (b) of which the upper surface of the sieve is smooth;
- (c) with a round frame of suitable material with an inner diameter of at least 300 mm and at least 50 mm high; and
- (d) that fits onto a tray with a solid bottom and must be at least 20 mm above bottom of the tray.

"**sunflower seed**" means the seed of the plant species of *Helianthus annuus* (L); and

"**the Act**" means the Agricultural Product Standards Act 119 of 1990.

#### **Restrictions on sale of sunflower seed**

- 2. (1) No person shall sell sunflower seed in the Republic of South Africa--
  - (a) unless the sunflower seed are sold according to the classes set out in regulation 3;

- (b) unless the sunflower seed comply with the standards for the classes concerned set out in regulation 4;
- (c) unless the sunflower seed, where applicable, comply with the grades of sunflower seed and the standards for grades set out in regulation 5 and 6 respectively;
- (d) unless the sunflower seed are packed in accordance with the packing requirements set out in regulation 7;
- (e) unless the container or sale documents, as the case may be, are marked in accordance with the marking requirements set out in regulation 8; and
- (f) if such sunflower seed contains a substance that renders it unfit for human or animal consumption or for processing into or utilisation thereof as food or feed.

(2) The Executive Officer may grant written exemption, entirely or partially, to any person on such conditions as he or she may deem necessary, from the provisions of sub-regulation (1): Provided that such exemption is done in terms of section 3(1) (c) of the Act.

## PART I

### QUALITY STANDARDS

#### ***Classes of sunflower seed***

3. Sunflower seed shall be classified as--

- (a) Class FH;
- (b) Class FS; and
- (c) Class Other Sunflower Seed.

#### ***Standards for classes of sunflower seed***

4. (1) A consignment of sunflower seed shall --

- (a) be free from a musty, sour, khaki bush or other undesired odour;
- (b) be free from any substance that renders it unsuitable for human or animal consumption or for processing into or utilisation as food or feed;
- (c) not contain more poisonous seeds than permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act 54 of 1972;
- (d) shall be free from stones, glass, metal, coal or dung;
- (e) with the exception of Class Other Sunflower seed, be free from insects;
- (f) with the exception of Class Other Sunflower seed, have a moisture content of not more than 10 percent; and
- (g) be free from animal filth.

- (2) A consignment of sunflower seed shall be classified as --
- (a) Class FH if it--
- (i) consist of at least 80 percent (m/m) sunflower seed of a cultivar with a high oil content; and
- (ii) complies with the standard for Grade 1 set out in regulation 6.
- (b) Class FS if it--
- (i) consist of at least 80 percent (m/m) sunflower seed of a cultivar with a low oil content; and
- (ii) complies with the standards for Grade 1 set out in regulation 6.
- (c) Class Other Sunflower Seed if it does not comply with the requirements for Class FH or Class FS.

**Grades for sunflower seed**

5. (1) There is only one grade for the Classes FH and FS Sunflower Seed, namely Grade 1.
- (2) No grades are determined for Class Other Sunflower seed.

**Standards for grades of sunflower seed**

6. A consignment of Grade 1 sunflower seed shall be graded as Grade 1 if the nature of deviation, specified in column 1 of Table 1 of the Annexure, in that consignment does not exceed the percentage specified in column 2 of the said table opposite the deviation concerned.

**PART II****PACKING AND MARKING REQUIREMENTS****Packing requirements**

7. Sunflower seed of different classes and grades shall be packed in different containers or stored separately.

**Marking requirements**

8. Every container or the accompanying sale documents of a sunflower seed shall be marked or endorsed with the class and, where applicable, the grade of the sunflower seed.

**PART III****SAMPLING****Obtaining a sample**

9. (1) A representative sample of a consignment of sunflower seed shall--

- (a) in the case of sunflower seed delivered in bags and subject to regulation 10, be obtained by sampling at least 10 percent of the bags, chosen from that consignment at random, with a bag probe: Provided that at least 25 bags in a consignment shall be sampled and where a consignment consists of less than 25 bags, all the bags in that consignment shall be sampled; and
- (b) in the case of sunflower seed delivered in bulk and subject to regulation 10, be obtained by sampling that consignment throughout the whole depth of the layer, in at least six different places, chosen at random in that bulk quantity, with a bulk sampling apparatus.
- (2) The collective sample obtained in sub-regulation (1) (a) or (b) shall--
- (a) have a total mass of at least 5 kg; and
- (b) be thoroughly mixed by means of dividing before further examination.
- (3) If it is suspected that the sample referred to in sub regulation (1)(a) is not representative of that consignment, an additional five percent of the remaining bags, chosen from that consignment at random, shall be emptied into a suitable bulk container and sampled in the manner contemplated in sub regulation(1)(b).
- (4) If it is suspected that the sample referred to in sub-regulation (1) (b) is not representative of that consignment, an additional representative sample shall be obtained by using an alternative sampling pattern, apparatus or method.
- (5) A sample taken in terms of these regulations shall be deemed to be representative of the consignment from which it was taken.

**Sampling if contents differ**

10. (1) If, after an examination of the sunflower seed taken from different bags in a consignment in terms of regulation 9(1), it appears that the contents of those bags differ substantially--
- (a) the bags concerned shall be separated from each other;
- (b) all the bags in the consignment concerned shall be sampled in order to do such separation; and
- (c) each group of bags with similar contents in that consignment shall for the purpose of these regulations be deemed to be separate consignment.
- (2) If, after the discharge of a consignment of sunflower seed in bulk has commenced, it is suspected that the consignment could be of a class or grade other than that determined by means of the initial sampling, the discharge shall immediately be stopped and that part of the consignment remaining in the bulk container, as well as the sunflower seed already in the collecting tray, shall be sampled anew with a bulk sampling apparatus or by catching at least 20 samples at regular intervals throughout the whole off loading period with a suitable container from the stream of sunflower seed that is flowing in bulk.

**Working sample**

11. (1) A working sample of sunflower seed shall be obtained by dividing the representative sample of the consignment according to the latest revision of the ICC (International Association for Science and Technology) 101/1 method.

**PART IV****INSPECTION METHODS*****Determination of undesired odour, harmful substances, poisonous seeds, stones, glass, metal, coal, dung, insect and animal filth***

12. A consignment or sample of a consignment shall be assessed sensorially or chemically analysed in order to determine whether it--

- (a) has a musty, sour, khaki bush or other undesired odour;
- (b) contains a substance that renders it unsuitable for human or animal consumption or processing into or utilization thereof as food or feed;
- (c) contains poisonous seeds;
- (d) contains stones, glass, metal, coal or dung;
- (e) contains any insects; and
- (f) contains animal filth.

***Determination of moisture content***

13. The moisture content of a consignment of sunflower seed may be determined according to any suitable method: Provided that the result thus obtained is in accordance with the maximum permissible deviation for a class 1 moisture meter as detailed in ISO 7700/2, based upon result of the 3 hour, 103°C oven dried method [the latest revision of the AACCI ("American Association of Cereal Chemists International") Method 44-15].

***Determination of percentage screenings***

14. The percentage screenings in a consignment of sunflower seed is determined as follows:

- (a) Obtain a working sample of at least 50g from a representative sample of the consignment.
- (b) Place the sample on a standard sieve; screen the sample by moving the sieve 50 strokes to and fro, alternately away from and towards the operator of the sieve, in the same direction as the long axes of the slots of the sieve. Move the sieve, which rests on a table or other suitable smooth surface, 250 mm to 460 mm away from and towards the operator with each stroke. The prescribed 50 strokes must be completed within 50 to 60 seconds: Provided that the screening process may also be performed in some or other container or an automatic sieving apparatus.

- (c) Determine the mass of the material that has passed through the sieve and express it that as a percentage of the mass of the working sample.
- (d) Such percentage represents the percentage screenings in the consignment.

***Determination of percentage foreign matter***

15. The percentage foreign matter in a consignment of sunflower seed shall be determined as follows:

- (a) Obtain a working sample of at least 20g of a screened sample.
- (b) Remove all foreign matter by hand and determine the mass thereof.
- (c) Express the mass thus determined as a percentage of the mass of the working sample.
- (d) Such a percentage represents the percentage foreign matter in the consignment.

***Determination of percentage sclerotia***

16. The percentage sclerotia in a consignment of sunflower seed is determined as follows:

- (a) Remove all sclerotia in the working sample in 15(a) obtained by hand and determine the mass thereof.
- (b) Express the mass thus determined as a percentage of the working sample in regulation 15(a) obtained.
- (c) Such a percentage represents the percentage sclerotia in the consignment.

***Determination of percentage sunflower seed of another class***

17. The percentage sunflower seed of another class in a consignment of sunflower seed shall be determined as follows:

- (a) Obtain a working sample of at least 20g from a screened sample free of foreign matter and sclerotia.
- (b) Remove all sunflower seeds of another class from the working sample by hand and determine the mass thereof.
- (c) Express the mass thus determined as a percentage of the working sample.
- (d) Such a percentage represents the percentage sunflower seed of another class in the consignment.

***Determination of the percentage damaged sunflower seed***

18. The percentage damaged sunflower seed in a consignment of sunflower seed, shall be determined as follows:

- (a) Obtain a working sample of at least 20 g from a screened sample free of foreign matter and sclerotia.

- (b) Shell the seed in the working sample by hand or with a machine so that nucleus portions thereof are retained.
- (c) Remove all damaged sunflower seed from the quantity thus shelled and determine the mass thereof.
- (d) Express the mass thus determined as a percentage of the working sample.
- (e) Such a percentage represents the percentage damaged sunflower seed in the consignment.

#### PART V

#### MASS DETERMINATION

19. The mass of sunflower seed shall be determined by deducting the actual percentage sclerotia, screenings and foreign matter found during the inspection process from the total mass of the consignment: Provided that the weighing instruments used for the determination of mass shall comply with the requirements of SANS 1649:2001 published in terms of the Trade Metrology Act 77 of 1973 for the specific class of instrument.

#### PART VI

#### OFFENCE AND PENALTIES

20. 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 terms of section 11 of the Act.

#### ANNEXURE

TABLE 1

#### STANDARDS FOR GRADES OF SUNFLOWER SEED

DEVIATIONS	Maximum permissible deviations	
	Class FH	Class FS
	Grade1	
1. Damaged sunflower seed	10%	
2. Screenings	4%	
3. Sclerotia	4%	
4. Foreign Matter	4%	
5. Deviation in 2,3 and 4 collectively: Provided that such deviations are individually within the limits of said items.	6%	