
**REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF
SUNFLOWER SEED INTENDED FOR SALE IN THE REPUBLIC OF SOUTH AFRICA
ARE REGULATED BY THE AGRICULTURE PRODUCT STANDARD ACT 1990 (ACT
119 OF 1990) AND IS STIPULATED IN GOVERNMENT GAZETTE NO R45 OF
22/01/2016**

1. DEFINITIONS

In these Regulations any word or expression to which a meaning has been assigned in the Act, must have that meaning, unless the context otherwise indicates:

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

"consignment" means a quantity of sunflower seed of the same class which belongs to the same owner, delivered at any one time under cover of the same consignment-, delivery- or receipt note, or delivered by the same vehicle or bulk container, or loaded from the same bin of a grain elevator, or from a ship's hold, or in the case where a quantity is subdivided into a grade, each such quantity of such grade;

"container" means a bag- or bulk container;

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

"bag" means a bag manufactured from:
jute, phormium or a mixture of jute and phormium; or
polypropylene that complies with SABS specification CKS 632;

"cultivar list "- means the list of cultivars determined from time to time by the Executive Officer: Agricultural Product Standards and which is obtainable from the Executive officer: Agricultural Product Standards, Private Bag X258 Pretoria, 0001;

"damaged sunflower seed" means sunflower seed or portions thereof, of which the nucleus is visibly discoloured as a result of external heat, or heating due to internal fermentation;

"foreign matter" means loose and empty shells above the sieve that occur in the consignment concerned;

all matter, **other** than glass, dung, coal, stones, metal, screenings, sclerotinia, sunflower seed and the nucleus of sunflower seed that occur in the consignment concerned;

"the Act" means the Agricultural Product Standards Act, 1990 (Act 119 van 1990);

"insect" means any live insect that is injurious to stored sunflower seed, irrespective of the stage of development of the insect;

"poisonous seeds" means the seed or pieces of seed of plant species that may represent a hazard to human- or animal health when consumed, including seeds of:

Argemone Mexicana L., Convolvulus spp., Crotalaria spp., Datura spp., Ipomoea Purpurea, Lolium Temulentum, Ricinus Communis of Xanthium spp.;

“**sunflower seed**” means the achene of plants of: *Helianthus Annuus* (L); and

“**sclerotinia**”- *Sclerotinia Sclerotiorum* is a fungus that produces hard masses of fungi tissue and is also known as sclerotinia. Sclerotinia varies in size and form and consists of a dark black exterior, a white interior and a rough surface texture;

“**screenings**”- means all material that passes through the standard sieve;

“**standard sieve**” is a slotted sieve with a flat bottom of metal sheet with a thickness of 1,0mm, with apertures 12.7 mm long and 1.8 mm wide with rounded ends (± 0.3 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;

of which the upper surface of the sieve is smooth;

with a round frame of suitable material with an inner diameter of at least 300 mm and at least 50 mm high; and

that fits onto a tray with a solid bottom and must be at least 20 mm above the bottom of the tray.

2. CLASSES OF SUNFLOWER SEED

Sunflower seed shall be classified as:

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

3. STANDARDS FOR CLASSES OF SUNFLOWER SEED

A consignment of sunflower seed must be classified as:

- (a) class FH if it:
 - consists of at least 80 % (m/m) sunflower seeds of a cultivar with a high oil content as specified in the cultivar list;
 - complies with the standard of Grade 1 as set out in Regulation 5;
- (b) class FS if it:
 - consists of at least 80 % (m/m) sunflower seeds of a cultivar with a low oil content as specified in the cultivar list;
 - complies with the standards for Grade 1 as set out in Regulation 5;
- (c) Class Other Sunflower if it does not comply with the requirements for Class FH, or FS.

4. GRADES FOR SUNFLOWER SEED

There is only one grade for Classes FH, and FS sunflower seed, namely Grade 1. No grades are determined for Class Other Sunflower seed.

5. STANDARDS FOR GRADES OF SUNFLOWER SEED

A consignment of Grade 1 sunflower seed must;

- (a) be free from a musty-, sour-, khaki bush- or other undesirable 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; and
- (c) must not contain more poisonous seeds than determined by the mentioned Act.

THE ACT ON FOODSTUFFS, COSMETICS AND DIS- INFECTANTS ACT, 1972 (ACT NO 54 OF 1974) Regulation R1225 of 04 October 2002, determines that the following tolerances for the presence of poisonous seeds in agricultural products must be applicable:

- (i) seed of *Crotalaria-Species*, *Datura-Species* or *Ricinus Communis*, **one (1) seed** in a representative sample of **1 000g (1 kg)**; and
- (ii) seed of *Argemone Mexicana L.*, *Convolvulus-Species*, *Ipomoea Purpurea Roth.*, *Lolium Temulentum* and *Xanthium-Species*, **seven (7) seeds** in a representative sample of **1 000g (1 kg)**.

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- (d) must be free from stones, glass, metal, coal or dung;
 - (e) must be free from insects;
 - (f) must not exceed the maximum permissible deviation as determined in the table of the grade; and
 - (g) must contain no more than 10 percent moisture.

6. PACKING REQUIREMENTS

Sunflower seed of different classes and grades, must be packed into different containers, or stored separately.

7. MARKING REQUIREMENTS

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

8. DETERMINATION OF UNDESIRABLE SMELL, HARMFUL SUBSTANCES, NOXIOUS SEEDS, STONES, GLASS, METAL, COAL, DUNG AND INSECT CONTENT

A sample of a consignment must be assessed sensorally, or be analysed chemically in order to determine:

- (a) whether it has a musty-, sour-, khaki bush- or other undesirable smell;
- (b) whether it contains sunflower seed in or on which a substance occurs, that renders it unsuitable for human- or animal consumption, or processing into or utilization thereof as food or feed;
- (c) whether it contains poisonous seeds;
- (d) whether it contains stones, glass, metal, coal or dung; and
- (e) whether it contains any insects.
- (f) whether moisture is more than 10 %.

9. DETERMINATION OF PERCENTAGE SCREENINGS

The percentage screenings in a consignment must be determined as follows:

- (a) Obtain a working sample of at least 50 g from a re-presentable sample of the consignment. Place the sample on the standard sieve and 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 and towards the operator with each stroke. The prescribe 50 strokes must be completed within 50 to 60 seconds: Provided that the screening process may also be performed in an automatic sieving apparatus;

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- (b) determine the mass of the material that has passed through the sieve and express it as a percentage of the mass of the working sample; and
 - (c) such percentage represents the percentage screenings in the consignment.

10. DETERMINATION OF PERCENTAGE OF FOREIGN MATTER

The percentage of foreign matter in a consignment must be determined as follows:

- (a) obtain a working sample with a mass of at least 20 g from the screened sample;
- (b) remove all foreign matter from the working samples concerned by hand and determine the mass thereof;
- (c) express the mass thus determine as a percentage of the mass of the working sample concerned;
- (d) such percentage represent the percentage of foreign matter in the consignment concerned.

11. DETERMINATION OF PERCENTAGE OF SUNFLOWER SEED OF ANOTHER CLASS

The percentage of sunflower seed of another class in a consignment must be determined as follows:

- (a) remove all sunflower seed of another class from the working sample in 10(a) obtained by hand and determine the mass thereof;
- (b) express the mass thus determined as a percentage of mass of the working sample in 10(a) obtained;
- (c) such percentage represent the percentage of sunflower seed of another class in the consignment concerned.

12. DETERMINATION OF PERCENTAGE OF DAMAGES SUNFLOWER SEED

The percentage of damaged sunflower seed in a consignment must be determined as follows:

- (a) shell the seed in the working sample in 10 (a) obtained by hand, or with a machine so that the nucleus portions thereof are retained;
- (b) remove all damaged sunflower seeds from the quantity thus shelled and determine the mass thereof;
- (c) express the mass thus determined as a percentage of mass of the working sample in 10(a) obtained;
- (c) such percentage represent the percentage of damaged sunflower seed in the consignment.

13. DETERMINATION OF PERCENTAGE SCLEROTINIA

The percentage sclerotinia in a consignment must be determined as follows:

- (a) remove all sclerotinia in the working sample obtained in 10(a) by hand and determined the mass thereof;
- (b) express the mass thus determined as a percentage of mass of the working sample in 10(a) obtained;
- (c) such percentage represent the percentage sclerotinia in the consignment.

TABLE 1

STANDARDS FOR GRADES OF SUNFLOWER SEED

	Deviation	Maximum permissible deviation	
		Class FH	Class FS
		Grade 1	
1	Damaged sunflower seed	10 %	
2	Screenings	4%	
3	Sclerotinia	4%	
4	Foreign matter	4%	
5	Total deviations for 2, 3 and 4 collectively: Provided that such deviations are individually within the limits of each item	6%	

THEORETICAL GRADING

		1	2	3	4	Total	Grade
1	Damaged sunflower seed						
2	Screenings						
3	Sclerotinia						
4	Foreign matter						
5	Total deviations for 2, 3 and 4 collectively: Provided that such deviations are individually within the limits of each item						
Final grade							

		1	2	3	4	Total	Grade
1	Damaged sunflower seed						
2	Screenings						
3	Sclerotinia						
4	Foreign matter						
5	Total deviations for 2, 3 and 4 collectively : Provided that such deviations are individually within the limits of each item						
Final grade							