
**REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF
SOYA BEANS 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 R225
OF 06/03/2009**

1. DEFINITIONS

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

"animal filth"

Means dead rodent, dead birds and dung;

"consignment"

a quantity of soya beans of the same class which belongs to the same owner, delivered at any 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 different grades - each such quantity of each of the different grades;

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

"bulk container" - means any vehicle or container in which bulk soya beans is transported or stored;

"bag"- means bag manufactured from:
jute- or 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 office: Agricultural Product Standards, Private Bag X258 Pretoria, 0001.

"defective soya beans" - means soya beans and pieces of soya beans which:

- (a) have been damaged by frost, heat or weather conditions;
- (b) have been visibly damaged by insects;
- (c) are contaminated by moulds or plant diseases;
- (d) have a distinctly immature form, or which are covered with a whitish membrane; or where the testa have a green discoloration: and
- (e) when the testa is removed, display discoloration, excluding green discoloration - provided that soya beans which were damaged by insects in the green pod stage and of which the discoloration is a result of the damage, are not larger than half of the surface of the soya beans, shall not be deemed as defective soya beans;

"foreign matter" - means all matter other than soya beans, glass, coal, dung, stones, sclerotinia or metal and includes loose seed coats of soya beans as well as pods.

"Frost damaged"- means soya beans with green to green brown seed-lobes with a waxy appearance;

"heat damage"- means soya beans with light to dark brown seed-lobes in a cross section;

"insect" - means any live insect which is injurious to stored soya beans, irrespective of the stage of development of the insect;

"mould infected"- means soya beans that is shrivelled and deformed in appearance with colour that varies from medium to dark brown and/or, parts of infected beans covered in mould;

"other grain"- means kernels or pieces of kernels of wheat, barley, oats, triticale, maize, rye and sorghum;

"wet pods" - all whole or damaged soya bean pods, with a moisture content higher than the permissible moisture content;

"pods" - all whole or damaged soya bean pods;

"poisonous seeds" - means seed or parts 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* spp., *Lolium Temulentum*, *Ricinus Communis* or *Xanthium* spp.;

"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;

"soya beans" - means the threshed seeds of the plant *Glycine Max* and where the word "soya beans" is used in conjunction with the word "consignment", which includes matter other than soya beans that is included in a consignment;

"soiled soya beans" - means whole soya beans and/or pieces of Soya beans which do not pass through the 4;75mm screen and which are discoloured by soil or any other substance: Provided that if the discoloration is caused by plant material, such soya beans will not be regarded as dirty soya beans; and

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

"the 4,75mm round-hole screen"- means a screen:

- (a) with a flat metal sheet of 1,0mm thickness perforated with round holes of 4, 75mm (\pm 0,04mm) in diameter that are arranged with the centers of the holes at the points of intersection of an equilateral triangular grid with a pitch of 8mm;
- (b) of which the upper surface of the sieve is smooth;
- (c) the frame of which is at least 40mm high;
- (d) with the inner width of at least 200mm and the inner length of at least 300mm or, in the case of a circular sieve, the inner diameter of at least 278mm; and
- (e) that fits onto a tray with a solid bottom and must be at least 20mm above the bottom of the tray.

"the 1.8mm slotted sieve" - is a slotted sieve:

the 1.8 mm slotted sieve which is also being used for the grading of wheat, sunflower seed and sorghum, will be used in combination with the 4.75 mm round-hole sieve for the determination of foreign matter.

- (a) with a flat bottom of metal sheet 1.0 mm thickness with apertures 12.7 mm long and 1.8 mm wide spacing with rounded ends. The spacing between slots in die 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 alternatively be orientated 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 between 300 mm and 310 mm maximum and at least 50 mm high;
- (d) that fits onto a tray with a solid bottom and must be at least 20 mm above the bottom of the tray.

QUALITY STANDARDS

2. CLASSES OF SOYA BEANS

There are two classes of soya beans, namely Class SB and Class Other Soya Beans.

3. STANDARDS FOR CLASSES OF SOYA BEANS

A consignment of soya beans is classified as Class SB, if it:

- (a) consists of any cultivar indicated on the Cultivar list for soya beans;
- (b) complies with the standards for the grade of Class SB soya beans as set out in Regulation 5; and
- (c) a consignment of soya beans is classified as Class Other soya beans, if it does not comply with the standards for Class SB.

4. GRADES OF SOYA BEANS

Soya beans of Class SB must be graded as Grade SB 1.

5. STANDARD FOR GRADES OF SOYA BEANS

Grade SB 1 soya beans, must:

- (a) be free from a musty-, sour-, khaki bush- or other undesired odour;
- (b) be free from glass, metal, coal or dung;
- (c) contain no more poisonous seeds than determined by the mentioned Act (Act 54 of 1974) Regulation R1225 of 04 October 2002;

seed of *Crotalaria-species*, *Datura-species* or *Ricinus Communis*, one (1) seed in a representative sample of 1 000g (1 kg); and 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);
- (d) be free from insects;
- (e) be free from a substance that renders it unfit for human- or animal consumption, or for processing into or utilization thereof as food or feed;
- (f) have a moisture content of not more than 13%; and
- (g) not exceed the maximum percentage of permissible deviation as determined in the Table of the Annexure for the grade.

6. PACKING REQUIREMENTS

Soya beans of different classes must be packed in different containers.

7. MARKETING REQUIREMENTS

Each container or the accompanying sales documents of a consignment of soya beans, must be marked or endorsed with the class and grade of the soya beans.

8. DETERMINATION OF UNDESIRABLE ODOURS, HARMFUL SUBSTANCES, NOXIOUS SEEDS, GLASS, METAL, COAL DUNG AND INSECTS

A consignment or a sample of a consignment of soya beans must be sensorially assessed or chemically analysed in order to determine, whether:

- (a) it has a musty-, sour-, khaki bush- or other undesirable odour;
- (b) it contains soya beans in which or on which a substance is found that renders it unfit for human- or animal consumption, or for processing into or for utilization as food or feed;
- (c) it contains poisonous seeds;
- (d) it contains glass, metal, coal or dung;
- (e) it contains any insects; and
- (f) have a moisture content of not more than 13%; and

9. DETERMINATION OF PERCENTAGE WET PODS

The percentage of wet pods in a consignment of soya beans must be determined as follows:

- (a) obtain a working sample of at least 10kg of soya beans from a representative sample of the consignment;
- (b) remove all wet pods by hands from the working sample and determine the mass thereof;
- (c) express the mass thus determined as a percentage of the total mass of the working sample concerned; and
- (d) such percentage represents the percentage of wet pods in the consignment concerned.

10. DETERMINATION OF PERCENTAGE OF OTHER GRAIN, SUNFLOWER SEED, STONES AND FOREIGN MATTER

The percentage of other grain, sunflower seed, stones, sclerotinia and foreign matter in a consignment of soya beans shall be determined as follows:

- (a) obtain a working sample of at least 200g from a representative sample of the consignment;
- (b) place the 1.8 mm slotted sieve in the pan and the 4.75 mm round-hole sieve on top of the 1.8 mm slotted sieve. Place the sample on the 4.75 mm round-hole sieve and screen the sample by moving the sieve 30 strokes to and from, alternately away from and towards the operator, in the same direction as the long axes of the slots of the 1.8 mm 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 30 strokes must be completed within 30- to 35 seconds: Provided that the screening process may also be performed in some or other container or an automatic sieving apparatus.
- (c) remove the foreign matter from both sieves by hand and add it to the foreign matter below the 1.8 mm sieve in the pan to determine the mass of the foreign matter. Remove all other grain, sunflower seed, stones and sclerotinia by hand from the working samples and determine the mass of the other grain, sunflower seed, stones and sclerotinia separately.
- (d) express the respective masses thus determined as a percentage of the total mass of the working sample concerned;
- (e) such percentages represent the percentage of other grain, sunflower seed, stones, sclerotinia and foreign matter in the consignment concerned.

11. DETERMINATION OF THE PERCENTAGE DEFECTIVE SOYA BEANS

The percentage of defective soya beans, must be determined as follows:

- (a) obtain a working sample of at least 100g soya beans, which are free of other grains, sunflower seed, stones and foreign matter from the representative sample of the consignment;
- (b) sieve the working sample over the 4,75mm round hole screen and a pan;
- (c) sort the soya beans on the 4,75mm round hole screen in such a way that the defective soya beans from the working sample concerned, is retained;
- (d) determine the mass of the defective soya beans on the 4,75mm round hole screen and express it as a percentage of the total mass of the working sample concerned;
- (e) such average represents the percentage of defective soya beans in the consignment.

12. DETERMINATION OF THE PERCENTAGE SOYA BEANS AND PIECES OF SOYA BEANS THAT PASS THROUGH THE 4,75MM ROUND HOLE SCREEN

The percentage of soya beans and pieces of soya beans which pass through the 4,75mm round hole screen, shall be determined as follows:

- (a) determine the mass of the soya beans and pieces of soya beans that pass through the 4.75 mm round-hole sieve and remain on top of the 1.8 mm slotted sieve of which the other grain, sunflower seed, stones, sclerotinia and foreign matter have been removed - express as percentage of the mass of the working sample.
- (b) such percentage represents the percentage soya beans and pieces of soya beans in the consignment which passes through the 4.75 mm round-hole sieve and not through a 1.8 mm slotted sieve.

13. DETERMINATION OF PERCENTAGE OF SOILED SOYA BEANS

The percentage of soiled soya beans in a consignment of soya beans, must be determined as follows:

- (a) remove all soiled soya beans from the working sample obtained in 11(a) by hand and determine the mass thereof;
- (b) express the mass determined in terms of paragraph (a) as a percentage of the total mass of the working sample obtained in 11(a);
- (c) such average represents the percentage of soiled soya beans in the consignment concerned.

14. DETERMINATION OF PERCENTAGE SCLEROTINIA

The percentage of sclerotinia in a consignment of soya beans shall be determined as follows:

- (a) remove all sclerotinia in the working sample obtained in 11(a) by hand and determine the mass thereof;
- (b) express the mass thus determined as a percentage of the working sample obtained in 11(a);
- (c) such percentage represents the percentage sclerotinia in the consignment.

ANNEXURE

**TABLE
STANDARDS FOR GRADES OF SOYA BEANS**

	NATURE OF DEVIATION	Maximum percentage permissible deviation (m/m)
		Grade SB1
A	Wet pods	0,2%
B	Foreign matter including stones, other grain- and sunflower seeds, provided that such deviations are individually within the limits specified in items (c), (d), and (e).	5%
C	Other grain	0,5%
D	Sunflower seed	0,1%
E	Stones	1%
F	Sclerotinia	4%
G	Soya beans and parts of soya beans which pass through the 4,75 mm round hole screen	10%
H	Defective soya beans on the 4,75 mm round hole screen	10%
I	Soiled soya beans	10%
J	Deviation in (b) and (f) collectively: Provided that such deviations are individually within the limits specified in each item	7%

Theoretical grading

	NATURE OF DEVIATION	1	2	3	4	Total	Grade
A	Wet pods						
B	Foreign matter including stones, other grain- and sunflower seeds, provided that such deviations are individually within the limits specified in items (c), (d), and (e).						
C	Other grain						
D	Sunflower seed						
E	Stones						
F	Sclerotinia						
G	Soya beans and parts of soya beans which pass through the 4,75 mm round hole screen						
H	Defective soya beans on the 4,75 mm round hole screen						
I	Soiled soya beans						
J	Deviation in (b) and (f) collectively: Provided that such deviations are individually within the limits specified in each item						
Final grade							