

DRAFT

DEPARTMENT OF AGRICULTURE

No. R.

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

REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF SOYA 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; and
- (b) determined that the said regulations shall come into operation on date of publication.

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 --

"bag" means bag manufactured from --

- (a) jute or phormium or a mixture of jute and phormium; or
- (b) polypropylene that complies with SABS specification CKS 632;

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

"consignment" means --

- (a) a quantity of soya beans of the same class, which belongs to the same owner, delivered at any one time under cover of the same consignment note, delivery note 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
- (b) in the case where a quantity referred to in paragraph (a), is subdivided into different grades, each such quantity of each of the different grades;

"container" means a bag or a bulk container;

"defective soya beans" means soya beans and pieces of 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 discolouration, excluding green discolouration:

Provided that soya beans which were damaged by insects in the green pod stage and of which the discolouration as a result of the damaged is not larger half than of the soya beans, shall not be deemed as defective soya beans;

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

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

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

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

"mould infected" soya beans that is shrivel and deformed in appearance with a colour that varies from medium to dark brown, parts of infected beans covered in mould;

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

"pods" all whole or damaged soya bean pods;

"poisonous seeds" means seeds or part of seeds of plant species that may, in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 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.*, *Impmoea 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. The sclerotinia varies in size and form and consists of a dark black exterior, a white interior and a rough surface texture;

"soiled soya beans" means whole soya beans which do not pass through the 4,75 mm screen and which are discoloured by soil or any other substance: Provided that if the discolouration is caused by plant material such soya beans shall not be regarded as soiled soya beans;

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

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

"the 4,75 mm round-hole sieve" means a sieve --

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

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

Restriction on sale of soya beans

2. (1) No person shall sell soya beans in the Republic of South Africa --
- (a) unless the soya beans are sold according to the classes set out in regulation 3;
 - (b) unless the soya beans comply with the standards for the class concerned set out in regulation 4;
 - (c) unless the soya beans, where applicable, comply with the grades of soya beans and the standards for grades set out in regulation 5 and 6 respectively;
 - (d) unless the soya beans 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 soya beans contains a substances that renders it unfit for human or animal consumption or for processing into or 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 provision of subregulation (1): Provided that such exemption is done in terms of section 3(1)(c) of the Act.

**PART I
QUALITY STANDARDS**

Classes of soya beans

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

Standards for classes of soya beans

4. (1) A consignment of soya beans 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) contain no more poisonous seeds than permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);
 - (d) shall be free from glass, metal, coal or dung;
 - (e) with the exception of Class Other soya beans, be free from insects; and
 - (f) with the exception of Class Other soya beans, have a moisture content of not more than 13 percent.
- (2) A consignment of soya beans is classified as Class SB if it --
- (a) consists of any cultivar of soya beans; and
 - (b) complies with the standards for the grade of Class SB soya beans as set out in regulation 6.

(3) A consignment of soya beans is classified as Class Other soya beans if it does not comply with the standards for Class SB.

Grades for soya beans

5. (1) Soya beans of Class SB shall be graded as Grade SB1.
- (2) No grades are determined for Class Other soya beans.

Standards for grades of soya beans

6. A consignment of soya beans shall be graded as --
 - (a) Grade SB1 if the nature of the 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. Soya beans of different classes and grades shall be packed in different containers or stored separately.

Marking requirements

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

PART III SAMPLING

Obtaining sample

9. (1) A representative sample of a consignment of soya beans shall --
 - (a) in the case of soya beans delivered in bags and subject to regulation 10, be obtained by sampling at least ten per cent 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 soya beans 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 subregulation (1)(a) or (b) shall --
 - (a) have a total mass of at least 10 kg; and
 - (b) be thoroughly mixed by means of dividing before further examination.
- (3) If it is suspected that the sample referred to in subregulation (1)(a) is not representative of that consignment, an additional five per cent 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 subregulation (1)(b).
- (4) If it is suspected that sample referred to in subregulation (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 soya beans taken from different bags in a consignment in terms of regulation 9(1), it appears that the contents of those bags differ substantially --

- (a) all the bags in the consignment concerned shall be sampled in order to do such separation;
- (b) the bags concerned shall be placed separately; and
- (c) each group of bags with a similar contents in that consignment shall for the purpose of these regulations be deemed to be a separate consignment.

(2) If, after the discharge of a consignment of soya beans in bulk has commenced, it is suspected that the consignment could be of a grade other than that determined by means of that initial sampling, the discharge shall immediately be stopped and the part of the consignment remaining in the bulk container, as well as the soya beans that is already in the collecting tray, shall be sampled a new with a bulk sampling apparatus or by catching at least 20 samples at regular intervals throughout the whole off loading periods with a suitable container from the stream of grain that is flowing in bulk.

Working sample

11. A working sample shall be obtained by dividing the representative sample of the consignment according to the ICC (International Chemistry Cereal Association) 101/1 (Approved 1982) method.

PART IV INSPECTION METHODS

Determination of undesired odours, harmful substances, poisonous seeds, glass, metal, coal, dung and insects

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

- (a) whether it has musty, sour, khaki bush or other undesired odour;
- (b) whether 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 utilisation as food or feed;
- (c) whether it contains poisonous seeds;
- (d) whether it contains glass, metal, coal or dung; and
- (e) whether it contains any insects.

Determination of moisture content

13. The moisture content of a consignment of soya beans may be determined according to any suitable method: Provided that the result thus obtained complies with the maximum permitted errors for a class 1 moisture meter as detailed in ISO 7700/2, based on result of the 72 hour, 103°C oven dried method [AACC ("American Association of Cereal Chemists") 44 - 15A].

Determination of percentage of wet pods

14. The percentage of wet pods in a consignment of soya beans shall be determined as follows:
- (a) Obtain a working sample of at least 10 kg 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.
 - (d) Such percentage represents the percentage of wet pods in the consignment concerned.

Determination of percentage of other grain, sunflower seed, stones and foreign matter

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

- (a) Obtain working samples of at least 200 from a representative sample of the consignment.
- (b) Remove all other grain, sunflower seed, stones and foreign matter by hand from the working samples and determine the mass of the other grain, sunflower, seed, stones and foreign matter separate.
- (c) Express the respective masses thus determined as a percentage of the total mass of the working sample concerned.
- (d) Such percentage represents the percentage of other grain, sunflower seed, stones and foreign matter respectively in the consignment concerned.

Determination of the percentage defective soya beans

16. The percentage of defective soya beans shall be determined as follows:

- (a) Obtain a working sample of at least 100g soya beans, which is free of other grain, sunflower seed, stones and foreign matter, from the representative sample of the consignment
- (b) Sieve the working sample over the 4, 75 mm round hole sieve and a pan.
- (c) Sort the soya beans on the 4, 75 mm round hole sieve so that the defective soya beans retained.
- (d) Determine the mass of the defective soya beans on the 4, 75 mm round hole sieve and express it as a percentage of the total mass of the working samples concerned.
- (e) Such percentage represents the percentage of defective soya beans in the consignment.

Determination of the soya beans and pieces of soya beans which pass through the 4,75 mm round hole sieve

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

- (a) Determine the mass of the soya beans and pieces of soya beans in the pan as obtained according to 16(a) and (b) and express it as a percentage of the total mass of the working sample obtained in 16(a).
- (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.

Determination of percentage of soiled soya beans

18. The percentage of soiled soya beans in a consignment of soya beans shall be determined as follows:
- (a) Remove all soiled soya beans from the working sample obtained in 16(a) and determined the mass thereof.
 - (b) Express the mass thus determined, as a percentage of the total mass of the working sample in 16(a) obtained.
 - (c) Such percentage represents the percentage of soiled soya beans in the consignment concerned.

Determination of percentage sclerotinia

19. The percentage sclerotinia in a consignment of soya beans shall be determined as follows:
- (a) Remove all sclerotinia in the working sample in 16(a) obtained by hand and determine the mass thereof.
 - (b) Express the mass thus determined as a percentage of the working sample in 16(a) obtained.
 - (c) Such percentage represents the percentage sclerotinia in the consignment.

**PART V
OFFENCES AND PENALTIES**

20. Any person who 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.

ANNEXURE/AANHANGSEL

TABLE/TABEL

STANDARDS FOR GRADES OF SOYA BEANS/STANDAARDE VIR GRADE VAN SOJABONE

Nature of deviation/Aard van afwyking	Maximum percentage permissible deviation (m/m)/ Maksimum persentasie toelaatbare afwyking (m/m)
	Grade/Graad SB1
1	2
(a) Wet pods/Nat peule	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), (e) and (f)/Vreemde voorwerpe, insluitende klippies, ander graan en sonneblomsaad: Met dien verstande dat sodanige afwykings individueel binne die perke gespesifiseer in items (c), (d), (e) en (f) is	4%
(c) Other grain/Ander graan	0,5%
(d) Sunflower seed/Sonneblomsaad	0,1%
(e) Stones/Klippies	1%
(f) Sclerotinia	4%
(g) Soya beans and parts of soya beans which pass through the 4,75 mm round hole screen/Sojabone en gedeeltes van sojabone wat deur die 4,75 mm-rondegatsif gaan	10%
(h) Defective soya beans on the 4,75 mm round hole screen/Gebrekkige sojabone op die 4,75 mm-rondegatsif	10%
(i) Soiled soya beans/Vuilgesmeerde sojabone	10%