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

**REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF
CANOLA INTENDED FOR SALE IN THE REPUBLIC OF SOUTH AFRICA**

The Minister of Agriculture, acting under section 15 of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990) made the regulations in the Schedule.

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 a bag manufactured from --

- (a) jute or phormium or a mixture of jute and phormium; or
- (b) polypropylene that complies with SABS specification CKS632;

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

"canola" means the whole seeds of plant species of *Brassica napus*;

"consignment" means --

- (a) a quantity of canola 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 a grade, each such quantity of such grade;

"container" means a bag or a bulk container;

"damaged seed" means canola that are diseased, affected by field fungi, frost damaged, heat damaged, insect damaged, weather damaged and immature. It includes broken or split seeds, distinctly green seeds and sprouted seeds.

"distinctly green seed" means canola which, after being crushed, exhibit a predominantly green colour over more than 50 percent of the crushed seed;

"ergot sclerotia" means the sclerotia of the fungus *Claviceps purpurea*; and **"ergot"** has a corresponding meaning;

"foreign matter" means all matter other than glass, dung, coal, metal and canola that occur in the consignment concerned and includes pieces of canola and husks;

"heat damaged seed" means canola which, after being crushed, exhibit a predominantly brown discoloration over more than 50 percent of the crushed seed;

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

"mouldy seed" means canola that is visibly affected by mould, fermentation and any subsequent deterioration;

"poisonous seeds" means the seeds or bits of seeds of plant species that may in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972) 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* or *Xanthium* spp.;

"sclerotinia" means *Sclerotinia sclerotiorum* which 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;

"sieves"

"canola sieve" means a set of hand sieves consisting of an upper round-hole sieve, lower slotted sieve that fits onto a tray with a solid bottom and must be at least 20 mm above the bottom of the tray;

"round-hole sieve" means a sieve

- (a) with a flat metal sheet bottom of 1,0 mm thickness perforated with round holes of 3,2 mm in diameter that are arranged with the centres of the holes at the points of intersection of an equilateral triangular grid with a vertical pitch of 5 mm and a horizontal pitch of 5 mm;
- (b) of which the upper surface of the bottom is smooth;
- (c) with a frame which is at least 35 mm high;
- (d) with the inner width of at least 200 mm and the inner length of at least 350 mm;

"slotted sieve" means a sieve

- (a) with a flat metal sheet bottom of 1,0 mm thickness perforated with rectangular slots of 12 mm in length and 0,9 mm in width with rounded ends. The spacing between the slots in the same row must be 1,5 mm wide and the spacing between the rows of slots must be 3,0 mm wide. The slots must be alternately orientated, with a slot directly opposite the solid inner segment of the adjacent row of slots;
- (b) of which the upper surface of the bottom is smooth;
- (c) with a frame which is at least 35 mm high;
- (d) with the inner width of at least 200 mm and the inner length of at least 350 mm;

"snails" means whole snails or substantial portions thereof and include bodies without shells;

"sprouted" means canola that shows signs of swelling, splitting or the presence of a rootlet. Seed that gives any indication of the commencement of growth is to be classified as being sprouted;

"stones" means hard shale, hard earth pellets, other non toxic materials of similar consistency, sand and gravel; and

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

Restrictions on sale of canola

2. (1) No person shall sell canola in the Republic of South Africa --
- (a) unless the canola is sold according to the classes set out in regulation 3;
 - (b) unless the canola complies with the standards for the class concerned set out in regulation 4;
 - (c) unless the canola complies with the grades of canola and the standards for grades set out in regulations 5 and 6 respectively;
 - (d) unless the canola is packed in accordance with the packing requirements set out in regulation 7;
 - (e) unless the containers or sale documents, as the case may be, are marked in accordance with the marking requirements set out in regulation 8; and
 - (f) if canola contains a substance that renders it unfit for human or animal consumption or for use by animals, 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 subregulation (1).

PART I**QUALITY STANDARDS****Classes of canola**

3. There are two classes of canola, namely Class C and Class Other canola.

Standards for classes of canola

4. (1) A consignment of canola 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 not more poisonous seeds or ergot sclerotia 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 canola, be free from insects and snails; and
 - (f) with the exception of Class Other canola, have a moisture content of not more than 8 percent.
- (2) A consignment of canola shall be classified as Class C if
- (a) the canola in the consignment consists of any cultivar of canola; and
 - (b) comply with the standards for the grade of Class C canola as set out in regulation 6.

(3) A consignment of canola shall be classified as Class Other canola if it does not comply with the standards for Class C canola.

Grades for canola

5. (a) The grades for Class C canola shall be as follows:
- (i) Grade 1; and
 - (ii) Grade 2.
- (b) No grades are determined for Class Other canola.

Standards for grades of canola

6. A consignment of canola shall be graded as --
- (a) Grade 1 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; and
 - (b) Grade 2 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 3 of the said table opposite the deviation concerned.

PART II

PACKING AND MARKING REQUIREMENTS

Packing requirements

7. Canola 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 consignment of canola shall be marked or endorsed with the class and grade of the canola.

PART III

SAMPLING

Obtaining sample

9. (1) A representative sample of a consignment of canola shall --
- (a) in the case of canola delivered in bags and subject to regulation 10, be obtained by sampling at least ten (10) 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 canola 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 sample obtained in sub regulation (1)(a) or (b) shall --

- (a) have a total mass of at least 3 kg; and
- (b) be thoroughly mixed before further dividing.

(3) If it is suspected that the sample referred to in sub regulation (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 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 canola 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 purposes of these regulations be deemed to be a separate consignment.

(2) If, after the discharge of a consignment of canola 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 the part of the consignment remaining in the bulk container, as well as the canola that is 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 canola that is flowing in bulk.

Working sample

11. A working sample of canola shall be obtained by dividing the representative sample of the consignment according to the method as prescribed by the ICC 101/1 (Approved 1982) method.

PART IV

INSPECTION METHODS

Determination of undesired odour, harmful substances, poisonous seeds, glass, metal, coal, dung, snails and insect content

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

- (a) whether it has a musty, sour, khaki bush or other undesired odour;
- (b) whether it contains canola 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 glass, metal, coal or dung;
- (e) whether it contains any insects;
- (f) whether it contains any snails.

Determination of moisture content

13. The moisture content of a consignment of canola may be determined according to any suitable method: Provided that the results thus obtained are in accordance with the maximum permissible deviation for a class 1 moisture meter as detailed in ISO 7700/2 based on results obtained by means of the 72 hour 103°C oven dried method (AACC Method 44-15A).

Determination of percentage heat damaged seed and distinctly green seed

14. The percentage heat damaged seed and distinctly green seed in a consignment canola shall be determined as follows:

- (a) Use a 100 seed ruler in which canola seed can fit.
- (b) Place the ruler in the clean sample and ensure that 100 seeds are placed in holes.
- (c) Place masking tape over seeds and apply pressure to ensure that seeds attach to the masking tape.
- (d) Remove masking tape and place on flat surface with seeds facing upwards.
- (e) With a roller, crush the canola, and count the number of heat damaged seed and distinctly green seed separately.
- (f) Repeat the procedure from (a) to (e) at least three times.
- (g) Determine the average number of heat damaged seed and distinctly green seed respectively.
- (h) Express the numbers thus determined separately as a percentage of 100 seeds.
- (i) Such percentages represent the percentage heat damaged seed and distinctly green seed respectively in the consignment concerned.

Determination of percentage foreign matter

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

- (a) Obtain a working sample of at least 500 g from a representative sample of the consignment.
- (b) Place the sample on the round-hole sieve that fits above the slotted sieve and screen the sample by moving the sieves 10 strokes to and fro, alternately away from and towards the operator of the sieves. Move the sieves that rest on a table or other suitable smooth surface, 250 mm to 460 mm away from and towards the operator with each stroke. The prescribed 10 strokes must be completed within 10 to 15 seconds. Remove the round-hole sieve and screen the rest of the sample with the slotted sieve by moving the sieve 40 strokes to and fro, alternately away from and towards the operator of the sieve. Move the sieve that rest on a table or other suitable smooth surface, 250 mm to 460 mm away from and towards the operator with each stroke. The prescribed 40 strokes must be completed within 40 to 50 seconds. Remove all

foreign matter above the round-hole sieve and below the slotted sieve and determine the mass thereof.

- (c) Express the mass thus determined as a percentage of the mass of the working sample.
- (d) Such percentage represents the percentage foreign matter in the consignment.

Determination of percentage sclerotinia

16. The percentage sclerotinia in a consignment of canola shall be determined as follows:
- (a) Obtain a working sample of at least 1000g from a representative sample of the consignment.
 - (b) Remove all sclerotinia by hand from the working sample and determine the mass thereof.
 - (c) Express the mass thus determined as a percentage of the working sample.
 - (d) Such percentage represents the percentage sclerotinia in the consignment concerned.

Determination of percentage sprouted kernels

17. The percentage sprouted kernels in a consignment canola shall be determined as follows:
- (a) Obtain a working sample of at least 10g from a representative sample of the consignment.
 - (b) Remove all sprouted seeds by hand from the working sample and determine the mass thereof.
 - (c) Express the mass thus determined as a percentage of the working sample.
 - (d) Such percentage represents the percentage sprouted kernels in the consignment concerned.

Determination of percentage ergot sclerotia

18. The percentage ergot sclerotia in a consignment of canola shall be determined as follows:
- (a) Obtain a working sample of at least 100g from a representative sample of the consignment.
 - (b) Remove all ergot sclerotia by hand from the working sample and determine the mass thereof.
 - (c) Express the mass thus determined as a percentage of the working sample.
 - (d) Such percentage represents the percentage ergot sclerotia in the consignment concerned.

PART V

OFFENCE AND PENALTIES

19. 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/AANHANGSEL

TABLE 1/TABEL 1

STANDARDS FOR GRADES OF CANOLA/
STANDAARDE VIR GRADE VAN CANOLA

NATURE OF DEVIATION/AARD VAN AFWYKING	Maximum percentage permissible deviation (m/m)/ Maksimum persentasie toelaatbare afwyking (m/m)	
	Grade/Graad 1	Grade/Graad 2
	1	2
(a) Heat damaged seed/Hittebeskadigde sade	2%	5%
(b) Distinctly green seed/Duidelike groen sade	4%	10%
(c) Sprouted kernels/Uitgeloopte pitte	2%	5%
(d) Mouldy seed/Skimmelbesmette sade	0%	0%
(e) Stones/Klippies	0.5%	0.5%
(f) Damaged seed: Provided that such deviations in (a), (b) and (c) are individually within the limits of said items/Beskadigde sade: Met dien verstande dat sodanige afwykings in (a), (b) en (c) individueel binne die perke van die genoemde items is.	6%	15%
(g) Sclerotinia	4%	4%
(h) Other grain/Ander graan	2.5%	3%
(i) Foreign matter, including stones and other grain: Provided that such deviations are individually within the limits specified in items (e) and (h)/Vreemde voorwerpe, insluitende klippies en ander graan: Met dien verstande dat sodanige afwykings individueel binne die perke gespesifiseer in items (e) en (h) is.	3.5%	4%