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## GOVERNMENT NOTICES GOEWERMENTSKENNISGEWINGS

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### DEPARTMENT OF AGRICULTURE DEPARTEMENT VAN LANDBOU

No. R. 473

8 May 2009

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

#### REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING OF MAIZE 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),

- (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 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 maize is stored or transported-

"consignment" means -

- (a) a quantity of maize 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;

"coffee stained maize kernels" means maize kernels with a shiny brown colour that occurs anywhere on the pericarp of the maize kernel;

"container" means a bag or a bulk container;

"defective maize kernels" means maize kernels and pieces of maize kernels-

- (a) that are shrivelled, obviously immature, frost-damaged, heat damaged, water damaged, mouldy or chalky;
- (b) that are discoloured by external factors such as water and sun: Provided that discoloration on both sides of the maize kernel limited to less than a quarter from the bottom tip of the maize kernel shall not be considered as defective; oxidation stained maize kernels; coffee stained maize kernels; and pinked maize kernels shall not be considered as defective;
- (c) that have sprouted, including kernels of which the shoot (plumule) in the germ is visibly discoloured;

- (d) that have cavities in the germ or endosperm caused by insects or rodents;
- (e) that are visibly soiled (smeared) or contaminated by smut, fire, soil, smoke or coal-dust;
- (f) all matter that can pass through the 6,35 mm round-hole sieve; and
- (g) that are of subspecies other than *Zea mays indentata* or *Zea mays indurata*.

Provided that:

- (i) irregularity of shape and size of maize kernels shall not affect the grading thereof;
- (ii) chipped or cracked maize kernels or pieces of maize kernels which are in a sound condition and which appear in a sample of maize, but which do not pass through a 6,35 mm round-hole sieve, shall not be regarded as defective maize kernels under these regulations;

"discoloured maize kernels" means maize kernels that are as a result of environmental conditions more than 25% discoloured on both sides of the kernel, excluding coffee stained maize kernels, oxidation stained maize kernels and pinked maize kernels;

"foreign matter" means all matter above the sieve other than maize, glass, stone, coal, dung or metal;

"frost damaged" means maize kernels that are covered with wrinkles on both sides of the kernel to the crown and have a pearl-like appearance. Maize kernels of which the bran is flaking is considered frost damaged if signs of frost damage are present;

"heat damaged" means kernels that are as a result of external heat or internal fermentation affected with excess moisture and have at least one of the following characteristics:

- (a) Kernels or pieces of kernels that are amber, brown, dark-brown or black discoloured;
- (b) Kernels of which the germ has dark-brown to black discoloration;

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

"maize" means the threshed kernels or pieces of kernels of the plants of *Zea mays indurata* and *Zea mays indentata* or one or more crossings of the two types;

"mouldy" means kernels or pieces of kernels that-

- (a) are visibly infected by fungi and are characterised by black, blue, green, yellow or white fungi growth anywhere on the kernel, or are characterised by fungi growth underneath the bran layer of the kernel;
- (b) are infected by ear-rot and are characterised by red, pink or brown discolorations. The kernels are partially to completely infected;

"other colour maize kernels" in relation to -

- (a) white maize, means maize kernels or pieces of maize kernels of which the endosperm as a result of genetic (characteristics) composition have another colour than white, excluding pinked maize kernels;
- (b) yellow maize, means maize kernels or pieces of maize kernels of which the endosperm as a result of genetic (characteristics) composition have another colour than yellow;

"oxidation stained maize kernels" means maize kernels with a shiny light brown colour that are discoloured from the crown and not from the tip cap;

"pinked maize kernels" means kernels and pieces of kernels of white maize of which the pericarp or part thereof is shaded red or pink in colour;

"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) represent a hazard to human or animal health when consumed, including seeds of *Argemone mexicana*, *Convolvulus* spp., *Crotalaria* spp., *Datura* spp., *Ipomoea* spp. *Lolium temulentum*, *Ricinus communis* or *Xanthium* spp;

"shrivelled or obviously immature maize kernels" means maize kernels with a thin and shrunken appearance;

"sprouted maize kernels" means maize kernels which have sprouted so far that developing roots and/or sprouts are clearly visible, or the shoot (plumule) in the germ is visibly discoloured;

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

"the 6,35 mm round-hole sieve" means a sieve-

- (a) with a flat metal sheet bottom of 1,0 mm thickness perforated with round holes of 6,35 mm ( $\pm 0,05$  mm) in diameter that are arranged with the centres of the holes at the points of intersection of an equilateral triangular grid with a pitch of 8 mm;
- (b) of which the upper surface of the bottom 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) with a minimum area of 600cm<sup>2</sup> and a maximum of 750cm<sup>2</sup>; and
- (f) that fits onto a tray with a solid bottom and must be at least 20mm above the bottom of the tray; and

"water damaged maize kernels" means maize kernels with a light yellow shine from the tip cap in a band around the maize kernel.

#### **Scope of regulations**

2. These regulations are the minimum standards applicable to maize that are destined for sale in the Republic of South Africa but does not include –

- (a) maize in retail quantities; and
- (b) maize for seed production purposes.

#### **Restrictions on sale of maize**

3. (1) No person shall sell maize in the Republic of South Africa -
  - (a) unless the maize is sold according to the classes set out in regulation 4;

- (b) unless the maize complies with the standards for the class concerned set out in regulation 5;
  - (c) unless the maize complies with the grades of maize and the standards for grades, where applicable, set out in regulations 6 and 7 respectively;
  - (d) unless the maize is packed in accordance with the packing requirements set out in regulation 8;
  - (e) unless the containers or sale documents, as the case may be, are marked in accordance with the marking requirements set out in regulation 9; and
  - (f) if such maize contains a substance that renders it unfit for human 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 subregulation 1: Provided that such exemption is done in terms of section 3 (1) (c) of the Act.

#### PART I QUALITY STANDARDS

##### *Classes of maize*

4. The classes of Maize shall be -

- (a) Class White Maize;
- (b) Class Yellow Maize; and
- (c) Class Other Maize.

##### *Standards for classes of maize*

5. (1) A consignment of maize shall be classified as Class White Maize if -
- (a) subject to the allowable deviation in respect of other colour maize kernels that apply to the different grades of white maize, it consists of maize the endosperm of which is by nature white in colour; and
  - (b) it complies with the standards for one of the grades of white maize set out in regulation 7.
- (2) A consignment of maize shall be classified as Class Yellow Maize if -
- (a) subject to the allowable deviation in respect of other colour maize kernels that apply to the different grades of yellow maize, it consists of maize the endosperm of which is by nature yellow in colour; and
  - (b) it complies with the standards for one of the grades of yellow maize set out in regulation 7.
- (3) A consignment of maize shall be classified as Class Other Maize if the consignment does not comply with the standards for Class White Maize or Class Yellow Maize.

**Grades of maize**

6. (1) Maize of the Class White Maize shall be graded as WM1, WM2 or WM3.  
(2) Maize of the Class Yellow Maize shall be graded as YM1, YM2 or YM3.  
(3) No grades are determined for Class Other Maize.

**Standards for grades of Class White Maize and Class Yellow Maize**

7. All grades of maize -
- (a) shall be free from a musty, sour or other undesired odour;
  - (b) shall be free from glass, metal, coal or dung;
  - (c) shall be free from a substance which renders it unfit for human consumption or for processing into or utilisation thereof as food or feed;
  - (d) shall be free from insects;
  - (e) shall be free from stones which cannot pass through the 6,35 mm round-hole sieve;
  - (f) shall contain not more than one gram of stones, which can pass through the 6,35 mm round-hole sieve, per 10 kg;
  - (g) shall contain not more poisonous seeds than permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);
  - (h) shall have a moisture content of not more than 14 per cent; and
  - (i) shall not exceed the maximum percentage of permissible deviation as determined in the table in the Annexure for each grade.

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

8. Maize of different classes and grades shall be packed in different containers.

**Marking requirements**

9. Each container or the accompanying sales document of a consignment of maize shall be marked or endorsed with -

- (a) the class of the maize;
- (b) the grade, in the case of Class White Maize or Class Yellow Maize; and

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

10. (1) A sample of a consignment of maize shall -

- (a) in the case of maize delivered in bags and subject to regulation 11, 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 maize 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) A sample taken in terms of these regulations shall be deemed representative of the consignment from which it was taken.

***Sampling if contents differ***

11. (1) If, after an examination of the maize taken from different bags in a consignment in terms of regulation 10(1), it appears that the contents of those bags differ substantially -
- (a) the bags concerned shall be placed separately;
  - (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 maize 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 grain 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 offloading period with a suitable container from the stream of grain that is flowing in bulk.

***Working sample***

12. A working sample shall be obtained by dividing the representative sample of the consignment according to the ICC 101/1 method.

**PART IV  
DETERMINATION OF OTHER SUBSTANCES**

***Determination of undesirable odours and harmful substances***

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

- (a) whether it has a musty, sour or other undesirable odour: Provided that a working sample of unscreened maize that is ground in a grain mill to a fine meal may be used for the determination concerned; and
- (b) whether it contains a substance that renders the maize unfit for human consumption or for processing into or for utilisation as food or feed.

***Determination of glass, metal, coal, dung, stone, poisonous seed and insect content***

14. A consignment of maize shall be sensorial assessed and a sample of that consignment shall be sensorial assessed and sorted by hand in order to determine whether the sample contains glass, metal, coal, dung, insects, stones and poisonous seeds.

***Determination of percentage of foreign matter***

15. The percentage of foreign matter in a consignment of maize shall be determined as follows:
- (a) Obtain a working sample with a mass of at least 150g from the sample of the consignment.
  - (b) Remove all foreign matter 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.
  - (d) Such percentage shall represent the percentage of foreign matter in the consignment concerned.

**PART V  
MAIZE KERNELS**

***Determination of percentage of defective maize kernels***

16. The percentage of defective maize kernels in a consignment of maize shall be determined as follows:
- (a) Obtain a working sample with a mass of at least 150g from the sample of the consignment.
  - (b) Place the working sample on the 6, 35 mm round-hole sieve and screen the sample by moving the sieve 20 strokes to and fro, alternately away from and towards the operator 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 20 strokes must be completed within 20 to 30 seconds.
  - (c) Determine the mass of the matter that has passed through the sieve and express it as a percentage of the mass of the working sample.
  - (d) Remove all defective maize kernels from that part of the working sample remaining on the sieve and determine the mass thereof.
  - (e) Express the mass as a percentage of the mass of the working sample.
  - (f) Calculate the sum of the masses determined in terms of paragraphs (c) and (d).
  - (g) Express the combined mass calculated in terms of paragraph (f) as a percentage of the mass of the working sample.
  - (h) In the case of yellow maize the percentage obtained -

- (i) in terms of paragraph (c), represents the percentage of defective maize kernels in the consignment concerned, which can pass through the 6,35 mm round-hole sieve; and
  - (ii) in terms of paragraph (e), represents the percentage of defective maize kernels in the consignment concerned, which can not pass through the 6,35 mm round-hole sieve.
- (l) In the case of white maize, the percentage obtained in terms of paragraph (g) represents the percentage of defective maize kernels in the consignment concerned.

***Determination of percentage of other colour maize kernels***

17. The percentage of other colour maize kernels in a consignment of maize shall be determined as follows:

- (a) Obtain a working sample with a mass of at least 150g from the sample of the consignment.
- (b) Remove all other colour maize kernels from the working sample and determine the mass thereof.
- (c) Express the mass thus determined as a percentage of the mass of the working sample.
- (d) Such percentage shall represent the percentage of other colour maize kernels in the consignment concerned.

***Determination of percentage of pinked maize kernels***

18. The percentage of pinked maize kernels in a consignment of maize shall be determined as follows:

- (a) Obtain a working sample with a mass of at least 150g from the sample of the consignment.
- (b) Remove all pinked maize kernels from the working sample and determines the mass thereof.
- (c) Express the mass thus determined as a percentage of the mass of the working sample.
- (d) Such percentage shall represent the percentage of pinked maize kernels in the consignment concerned.

**PART VI  
MOISTURE CONTENT**

***Determination of moisture content***

19. The moisture content of a consignment of maize 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 7700/1 based on the results of the 72 hour, 103°C oven dried method (AACC Method 44-15A).

**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/AANHANGSEL  
TABLE/TABEL**

**STANDARDS FOR GRADES OF CLASS WHITE MAIZE AND CLASS YELLOW MAIZE/  
STANDAARDE VIR GRADE VAN KLAS WITMIELIES EN KLAS GEELMIELIES**

Deviation/Afwyking	Maximum permissible deviation/ Maksimum toelaatbare afwyking					
	White maize/ Witmielies			Yellow maize/ Geelmielies		
	WM1	WM 2	WM 3	YM1	YM2	YM3
1	2	3	4	5	6	7
1. Foreign matter [regulation 15]/ Vreemde voorwerpe [regulasie 15]	0,3%	0,5%	0,75 %	0,3%	0,5%	0,75%
2. Defective maize kernels, above and below the 6,35 mm round-hole sieve [regulations 16]/ <i>Gebrekkige mieliepitte, bo en onder die 6,35 mm-rondegatsif [regulasies 16]</i>	7%	13%	30%	*	*	*
3. Defective maize kernels that can pass through the 6,35 mm round-hole sieve [regulation 16(c)]/ <i>Gebrekkige mieliepitte wat deur die 6,35 mm rondegatsif kan gaan [regulasie 16(c)]</i>	*	*	*	4%	10%	30%
4. Defective maize kernels that can not pass through the 6,35 mm round-hole sieve [regulation 16(e)]/ <i>Gebrekkige mieliepitte wat nie deur die 6,35 mm-rondegatsif kan gaan nie [regulasie 16(e)]</i>	*	*	*	9%	20%	30%
5. Other colour maize kernels [regulation 17]/ <i>Mieliepitte van 'n ander kleur [regulasie 17]</i>	3%	6%	10%	2%	5%	5%
6. Deviations referred to in items 1, 3, 4 and 5 individually within the specified limits/ <i>Afwykinge in items 1, 3, 4 en 5 bedoel, gesamentlik: met dien verstande dat die afwykinge individueel binne die gespesifiseerde perke is</i>	8%	16%	30%	9%	20%	30%
7. Pinked maize kernels [regulation 18]/ <i>Verrooide mieliepitte [regulasie 18]</i>	12%	12%	12%	*	*	*

\* Not specified/Nie gespesifiseer nie.

No. R. 473

8 Mei 2009

WET OP LANDBOUPRODUKSTANDAARDE, 1990  
(WET No. 119 VAN 1990)REGULASIES MET BETREKKING TOT DIE GRADERING, VERPAKKING EN MERK VAN MIELIES  
BESTEM VIR VERKOOP IN DIE REPUBLIEK VAN SUID-AFRIKA

Die Minister van Landbou, handelende kragtens artikel 15 van die Wet op Landbouprodukstandaarde, 1990 (Wet No. 119 van 1990)

- (a) het die regulasies in die Bylae uitgevaardig; en
- (b) bepaal dat die genoemde regulasies op datum van publikasie in werking sal tree.

## BYLAE

*Woordomskrywing*

1. In hierdie regulasies het enige woord of uitdrukking waaraan 'n betekenis in die Wet geheg is, daardie betekenis en tensy uit die samehang anders blyk, beteken -

**"besending"-**

- (a) 'n hoeveelheid mielies van dieselfde klas, wat aan dieselfde eienaar behoort, wat op 'n bepaalde tydstip afgelewer word onder dekking van dieselfde vragbrief, afleweringbrief of ontvangsbewys, of gelewer word deur dieselfde voertuig of losmaathouer, of wat uit dieselfde buis van 'n graansuier of 'n skeepsruim gelaai word; of
- (b) in die geval waar 'n hoeveelheid in paragraaf (a) bedoel, ingedeel is in verskillende grade, elke sodanige hoeveelheid van elk van die verskillende grade;

**"die 6,35 mm-rondegatsif" is 'n sif ;**

- (a) met 'n plat bodem van metaalplaat van 1 mm dikte geperforeer met ronde gate met 'n deursnee van 6,35 mm ( $\pm 0,05$  mm) wat so gerangskik is dat die middelpunte van die gate saamval met die kruispunte van 'n gelyksydige driehoekige rooster met 'n steek van 8 mm;
- (b) waarvan die boonste oppervlak van die glad is;
- (c) waarvan die raam minstens 40 mm hoog is;
- (c) waarvan die binnebreedte minstens 200 mm en die binnelengte minstens 300 mm is, of in die geval van 'n ronde sif, die binnedeursnee minstens 278 mm is;
- (d) met 'n minimum oppervlakte van 600 cm<sup>2</sup> en 'n maksimum van 750 cm<sup>2</sup>; en
- (e) wat op 'n pan met 'n soliede bodem pas en moet minstens 20 mm bo die bodem van die pan wees.

**"die Wet"** die Wet op Landbouprodukstandaarde, 1990 (Wet No. 119 van 1990);

**"gebreklike mieliepitte"** mieliepitte of stukkie mieliepitte wat-

- (a) verskrompel, duidelik onvolwasse, rypbeskadig, hitte beskadig, water beskadig, gemuf of krytagtig is;

- (b) wat deur eksterne faktore soos byvoorbeeld water en son verkleur is: Met dien verstande dat verkleuring weerskante van die mieliepit beperk tot minder as 'n kwart vanaf die onderste punt van die mieliepit nie as gebrekkig beskou sal word nie; oksidasie gevlekte mieliepitte; koffiegevekte mieliepitte; en verrooide mieliepitte word nie as gebrekkig beskou nie;
- (c) uitgeloop is, insluitend pitte waarvan die groeipunt (plumule) in die kiem sigbaar verkleur is;
- (d) holtes in die kiem of endosperm het wat deur insekte of knaag-diere veroorsaak is;
- (e) sigbaar deur grond, brand, roet, rook of steenkoolstof besoedel of besmeer is;
- (f) deur die 6,35 mm-rondegatsif kan gaan;
- (g) van ander subspesies as *Zea mays indentata* of *Zea mays indurata* is.

Met dien verstande dat --

- (i) onreëlmatigheid in die vorm en grootte van mieliepitte nie die gradering daarvan beïnvloed nie;
- (ii) mieliepitte waarvan stukke afgebreek is, gebarste mieliepitte en stukkie van mieliepitte wat gesond is en wat in 'n monster mielies voorkom, maar wat nie deur die 6,35 mm rondegatsif gaan nie, nie by toepassing van hierdie regulasies as gebrekkige mieliepitte beskou sal word nie.

"gemuf" mieliepitte of stukkie mieliepitte wat--

- (a) sigbaar deur swamme besmet is en word gekenmerk deur swart, blou, groen, geel of wit swamgroei wat op enige plek op die mieliepit voorkom, of word gekenmerk deur swamgroei wat onder die semellaag van die mieliepit voorkom; en
- (b) deur kopvrot aangetas is, en word gekenmerk deur rooi, pienk of bruin verkleurings. Mieliepitte is gedeeltelik tot volkome aangetas.

"giftige sade" sade of gedeeltes van sade van plantspesies wat volgens die Wet op Voedingsmiddels, Skoonheidsmiddels en Ontsmettingsmiddels, 1972 (Wet no 54 van 1972) 'n risiko vir menslike of dierlike gesondheid kan inhou indien dit verbruik word, insluitende sade van *Argemone mexicana*, *Convolvulus* spp., *Crotalaria* spp., *Datura* spp., *Ipomoea* spp., *Lolium temulentum*, *Ricinus communis*, of *Xanthium* spp.;

"Hitte beskadigde mieliepitte" mieliepitte wat as gevolg van eksterne hitte of deur binnegisting met 'n oormaat vog aangetas is en ten minste een van die volgende eienskappe besit:

- (a) Heel mieliepitte of gedeeltes van mieliepitte wat as amber, bruin, donker-bruin of swart verkleur is.
- (b) Mieliepitte waarvan die kiem donkerbruin tot swart verkleuring het.

"houer" 'n sak of 'n losmaathouer;

"insek" met betrekking tot mielies, enige lewende insek wat skadelik is vir opgebergde graan, ongeag die stadium van ontwikkeling van die insek;

"koffiegevekte mieliepitte" mieliepitte met 'n blink bruin kleur wat op enige plek op die opperhuid van die mieliepit voorkom;

"losmaathouer" enige vervoermiddel of houer waarin losmaatmielies opgeberg of vervoer word;

"mieliepitte van 'n ander kleur" met betrekking tot -

- (a) wit mielies, mieliepitte en stukkies mieliepitte waarvan die endosperm as gevolg van genetiese (eienskappe) samestelling 'n ander kleur as wit besit, uitgesonderd verrooide mieliepitte;
- (b) geelmielies, mieliepitte en stukkies mieliepitte waarvan die endosperm as gevolg van genetiese (eienskappe) samestelling 'n ander kleur as geel besit;

"mielies" die gedorste pitte en stukkies pitte van plante van *Zea mays indurata* en *Zea mays indentata* of een of meer kruisings van die twee tipes;

"oksidatie gevlekte mieliepitte" mieliepitte met 'n blink ligbruin kleur wat vanaf die kroon verkleur is en nie vanaf die aanhegtingspunt nie;

"rypbeskadig" mieliepitte wat met riffsels aan weerskante van die pit tot by die kruin bedek is, en pèrelagtig in voorkoms vertoon. Mieliepitte waarvan die semel afskilfer word as rypbeskadig beskou, indien daar tekens van rypbeskadiging teenwoordig is;

"sak" 'n sak vervaardig -

- (a) van jute of phormium of 'n mengsel van jute en phormium; of
- (b) van polipropileen wat voldoen aan SABS spesifikasie CKS632;

"uitgeloopte mieliepitte" mieliepitte wat in so 'n mate uitgeloop is dat ontwikkelende worteltjies en/of spruitjies duidelik sigbaar is, of die groeipunt (plumula) binne in die kiem sigbaar verkleur is;

"verkleurde mieliepitte" mieliepitte wat weerskante van die mieliepitte meer as 25% as gevolg van omgewingstoestand verkleur het, uitgesluit oksidatie gevlekte mieliepitte, koffiegevekte mieliepitte en verrooide mieliepitte;

"verrooide mieliepitte" witmieliepitte en stukkies witmieliepitte waarvan die oppervlakte of 'n gedeelte daarvan skakerings van 'n rooi of pienk kleur het;

\* "verskrompel of duidelik onvolwasse" mieliepitte met 'n maer en verkrimpte voorkoms;

"vreemde voorwerpe" alle voorwerpe anders as mielies, glas, klippe bo die sif, steenkool, mis of metaal; en

"water beskadigde mieliepitte" mieliepitte met 'n liggeel skynsel wat vanaf die aanhegtingspunt in 'n band rondom die mieliepit voorkom.

#### **Bestek van regulasies**

2. Hierdie regulasie is die minimum standaard van toepassing op mielies wat bestem is vir die verkoop in die Republiek van Suid-Afrika maar sluit nie in nie -

- (a) mielies wat in kleinhandelhoeveelhede verpak is; of
- (b) mielies wat saad produksie bedoeling is.

**Beperkings op verkoop van mielies**

3. (1) Niemand mag mielies in die Republiek van Suid-Afrika verkoop nie -
- (a) tensy die mielies verkoop word volgens die klasse in regulasie 4 uiteengesit;
  - (b) tensy die mielies voldoen aan die standaard vir die betrokke klas in regulasie 5 uiteengesit;
  - (c) tensy die mielies, waar van toepassing, voldoen aan die grade van mielies en standaard vir die grade in regulasies 6 en 7 onderskeidelik uiteengesit;
  - (d) tensy die mielies verpak is volgens die verpakkings-vereistes in regulasie 8 uiteengesit;
  - (e) tensy die houers of verkoopsdokumente, na gelang van die geval, gemerk is in ooreenstemming met die merkvereistes in regulasie 9 uiteengesit; en
  - (f) indien sodanige mielies 'n stof bevat wat dit ongeskik maak vir menslike verbruik of vir verwerking tot of aanwending daarvan as voedsel of voer.
- (2) Die Uitvoerende Beampte kan iemand skriftelik, in die geheel of gedeeltelik, op die voorwaardes wat hy of sy nodig ag, van die bepalinge van subregulasie (1) vrystel.

**DEEL I  
GEHALTESTANDAARDE****Klasse mielies**

4. Die klasse mielies is -
- (a) Klas Witmielies;
  - (b) Klas Geelmielies; en
  - (c) Klas Ander Mielies.

**Standaard vir klasse mielies**

5. (1) 'n Besending mielies word as Klas Witmielies geklassifiseer indien dit -
- (a) behoudens die toelaatbare afwyking ten opsigte van mieliepitte van 'n ander kleur wat geld vir die verskillende grade witmielies, bestaan uit mielies waarvan die endosperm van nature 'n wit kleur het; en
  - (b) voldoen aan die standaard vir een van die grade witmielies in regulasie 7 uiteengesit.
- (2) 'n Besending mielies word as Klas Geelmielies geklassifiseer indien dit -
- (a) behoudens die toelaatbare afwyking ten opsigte van mieliepitte van 'n ander kleur wat geld vir die verskillende grade geelmielies, bestaan uit mielies waarvan die endosperm van nature 'n geel kleur het; en
  - (b) voldoen aan die standaard vir een van die grade geelmielies in regulasie 7 uiteengesit.
- (3) 'n Besending mielies word as Klas Ander Mielies geklassifiseer indien die besending nie voldoen aan die standaard vir Klas Witmielies of Klas Geelmielies nie.

**Grade mielies**

6. (1) Mielies van die Klas Witmielies word as WM1, WM2 of WM3 gegradeer.  
(2) Mielies van die Klas Geelmielies word as YM1, YM2 of YM3 gegradeer.  
(3) Geen grade word vir Klas Ander Mielies bepaal nie.

**Standaard vir grade van Klas Witmielies en Klas Geelmielies**

7. (1) Alle grade mielies -
- (a) moet vry wees van 'n muwwe, suur of ander ongewenste reuk;
  - (b) moet vry wees van glas, metaal, steenkool of mis;
  - (c) moet vry wees van 'n stof wat dit onskik maak vir menslike gebruik of vir verwerking tot of aanwending daarvan as voedsel of voer;
  - (d) moet vry wees van insekte;
  - (e) moet vry wees van klippies wat nie deur die 6,35 mm-ronde-gatsif kan gaan nie;
  - (f) mag hoogstens een gram klippies wat deur die 6,35 mm-ronde-gatsif kan gaan, per 10 kg bevat;
  - (g) mag geen giftige sade bevat wat die toegelate hoeveelhede soos voorgeskryf kragtens die Wet op Voedingsmiddels, Skoonheidsmiddels en Ontsmettingsmiddels, 1972 (Wet No. 54 van 1972) oorskry nie;
  - (h) mag 'n voginhoud van hoogstens 14 persent hê; en
  - (i) mag nie die maksimum persentasie toelaatbare afwykings soos in die tabel in die Aangangsel ten opsigte van elke graad bepaal, oorskry nie.

**DEEL II  
VERPAKKINGS- EN MERKVEREISTES****Verpakkingsvereistes**

8. Mielies van verskillende klasse en grade word in verskillende houers verpak.

**Merkvereistes**

9. Elke houer of die meegaande verkoopsdokumente van 'n besending mielies word gemerk of geëndosseer met -
- (a) die klas van die mielies; en
  - (b) die graad, in die geval van Klas Witmielies of Klas Geelmielies.

**DEEL III  
MONSTERNEMING****Verkryging van monster**

10. (1) 'n Monster van 'n besending mielies word -

- (a) in die geval van mielies in sakke gelewer en behoudens regulasie 10, verkry deur minstens tien persent van die sakke, ewekansig uit daardie besending gekies, met 'n saksteker te bemonster. Met dien verstande dat minstens 25 sakke in 'n besending bemonster word en waar 'n besending uit minder as 25 sakke bestaan, al die sakke in daardie besending bemonster word; en
  - (b) in die geval van mielies in losmaat gelewer en behoudens regulasie 10, verkry deur daardie besending deur die volle diepte by minstens ses verskillende plekke, ewekansig in daardie losmaathoeveelheid uitgekies, met 'n losmaatmonster-nemingsapparaat te bemonster.
- (2) Die gesamentlike monster in subregulasie (1)(a) of (b) verkry, moet -
- (a) 'n totale massa van minstens 10 kg hê; en
  - (b) deeglik gemeng word deur verdeling voor verdere ondersoek.
- (3) Indien vermoed word dat die monster in subregulasie (1)(a) bedoel, nie verteenwoordigend van daardie besending is nie, word 'n addisionele vyf persent van die oorblywende sakke, ewekansig uit daardie besending gekies, in 'n geskikte losmaathouer uitgegooi en bemonster op die wyse in subregulasie (1)(b) beoog.
- (4) 'n Monster ingevolge hierdie regulasies geneem, word geag verteenwoordigend te wees van die besending waaruit dit geneem is.

***Monsterneming indien inhoud verskil***

11. (1) Indien dit blyk, na 'n ondersoek van die mielies wat ingevolge regulasie 9(1) uit verskillende sakke in 'n besending geneem is, dat die inhoud van daardie sakke wesenlik verskil, word -
- (a) die onderskeie sakke van mekaar geskei;
  - (b) al die sakke in die betrokke besending bemonster ten einde sodanige skelding te doen; en
  - (c) elke groep sakke met 'n soortgelyke inhoud in daardie besending vir die doeleindes van hierdie regulasies geag 'n afsonderlike besending te wees.

(2) Indien, nadat met die aflaai van 'n besending mielies in losmaat begin is, daar vermoed word dat die besending van 'n ander klas of graad kan wees as wat met behulp van die aanvanklike bemonstering bepaal is, word die aflaaiproses onmiddellik gestaak en word die deel van die besending wat in die losmaathouer oorbly asook die graan wat reeds in die opvangbak gestort is, van vooraf met 'n losmaatmonster-nemingsapparaat bemonster of deur minstens 20 monsters met 'n geskikte houer met gereelde tussenposes oor die hele aflaaiperiode uit die stroom van die graan wat in losmaat vloei, op te vang.

***Werkmonster***

12. 'n Werkmonster word verkry deur die verteenwoordigende monster van die besending volgens die ICC 101/1 metode, te verdeel.

**DEEL IV  
BEPALING VAN ANDER STOWWE**

***Bepaling van ongewenste reuke en skadelike stowwe***

13. 'n Monster van 'n besending mielies word sintuiglik beoordeel of skeikundig ontleed ten einde te bepaal -

- (a) of dit 'n muwwe, suur of ander ongewenste reuk het: Met dien verstande dat 'n werkmonster ongesifte mielies met 'n graanmeul tot 'n fyn meel gemaal vir die betrokke beoordeling gebruik kan word; en
- (b) of dit 'n stof bevat wat die mielies ongeschik maak vir menslike verbruik of vir verwerking tot of aanwending as voedsel of voer.

***Bepaling van glas-, metaal-, steenkool-, mis-, klipie-, giftige saad- en insekinhoud***

14. 'n Besending mielies word sintuiglik beoordeel en 'n monster van daardie besending word sintuiglik beoordeel en met die hand uitgesoek ten einde te bepaal of die monster glas, metaal, steenkool, mis, insekte, klippies en giftige sade bevat.

***Bepaling van persentasie vreemde voorwerpe***

15. Die persentasie vreemde voorwerpe in 'n besending mielies word soos volg bepaal:
- (a) Verkry 'n werkmonster met 'n massa van minstens 150 g van die monster van die besending.
  - (b) Verwyder alle vreemde voorwerpe uit die werkmonster en bepaal die massa daarvan.
  - (c) Druk die massa aldus bepaal uit as 'n persentasie van die massa van die werkmonster.
  - (d) Sodanige persentasie verteenwoordig die persentasie vreemde voorwerpe in die betrokke besending.

**DEEL V  
MIELIEPITTE**

***Bepaling van persentasie gebrekkige mieliepitte***

16. Die persentasie gebrekkige mieliepitte in 'n besending mielies word soos volg bepaal:
- (a) Verkry 'n werkmonster met 'n massa van minstens 150 g van die monster van die besending.
  - (b) Plaas die werkmonster op die 6,35 mm-rondegatsif, sif die monster deur die sif 20 stote heen en weer, beurtelings weg van en terug na die hanteerder van die sif te beweeg. Beweeg met elke stoot die sif, wat op 'n tafel of ander geskikte gladde oppervlak rus, 250 mm tot 460 mm weg van en terug na die hanteerder. Die voorgeskrewe 20 stote moet binne 20 tot 30 sekondes voltooi word.
  - (c) Bepaal die massa van die mieliepitte en stukkies mieliepitte wat deur die sif gegaan het en druk die massa aldus bepaal uit as 'n persentasie van die massa van die werkmonster.
  - (d) Verwyder alle gebrekkige mieliepitte uit die deel van die werkmonster wat bo-op die sif agterbly en bepaal die massa daarvan.
  - (e) Druk die massa uit as 'n persentasie van die massa van die werkmonster.
  - (f) Bereken die somtotaal van die massas ingevolge paragrawe (c) en (d) bepaal.
  - (g) Druk die gesamentlike massa ingevolge paragraaf (f) bereken, uit as 'n persentasie van die totale massa van die werkmonster.



- (h) In die geval van geelmielies verteenwoordig die persentasie -
  - (i) ingevolge paragraaf (c) verkry, die persentasie gebrekkige mieliepitte in die betrokke besending, wat deur die 6,35 mm-rondegatsif kan gaan; en
  - (ii) ingevolge paragraaf (e) verkry, die persentasie gebrekkige mieliepitte in die betrokke besending, wat nie deur die 6,35 mm-rondegatsif kan gaan nie.
- (i) In die geval van witmielies verteenwoordig die persentasie ingevolge paragraaf (g) verkry, die persentasie gebrekkige mieliepitte in die betrokke besending.

***Bepaling van persentasie mieliepitte van 'n ander kleur***

17. Die persentasie mieliepitte van 'n ander kleur in 'n besending mielies word soos volg bepaal:
- (a) Verkry 'n werkmonster met 'n massa van minstens 150 g van die monster van die besending.
  - (b) Verwyder alle mieliepitte van 'n ander kleur uit die werkmonster en bepaal die massa daarvan.
  - (c) Druk die massa aldus bepaal uit as 'n persentasie van die massa van die werkmonster.
  - (a) Sodanige persentasie verteenwoordig die persentasie mieliepitte van 'n ander kleur in die betrokke besending.

***Bepaling van persentasie verrooide mieliepitte***

18. Die persentasie verrooide mieliepitte in 'n besending mielies word soos volg bepaal:
- (a) Verkry 'n werkmonster met 'n massa van minstens 150 g van die monster van die besending.
  - (b) Verwyder alle verrooide mieliepitte uit die werkmonster en bepaal die massa daarvan.
  - (c) Druk die massa aldus bepaal uit as 'n persentasie van die massa van die werkmonster.
  - (b) Sodanige persentasie verteenwoordig die persentasie verrooide mieliepitte in die betrokke besending.

**DEEL VI  
VOGINHOUD**

***Bepaling van voginhoud***

19. Die voginhoud van 'n besending mielies kan volgens enige geskikte metode bepaal word: Met dien verstande dat die resultate aldus verkry in ooreenstemming is met die maksimum toelaatbare afwyking vir 'n klas 1 vogmeter soos uiteengesit in ISO 7700/1 gebaseer op die resultate verkry deur die 72 uur, 103°C oonddroogmetode (AACC Metode 44-15A).

**OORTREDING EN STRAWWE**

20. Iemand wat 'n bepaling van hierdie regulasies oortree of versuim om daaraan te voldoen, is aan 'n misdryf skuldig en by skuldigbevinding strafbaar met 'n boete van hoogstens R8 000 of met gevangenisstraf vir 'n tydperk van hoogstens twee jaar of met sowel daardie boete as daardie gevangenisstraf.

## ANNEXURE/AANHANGSEL (A)

## TABLE/TABEL

STANDARDS FOR GRADES OF CLASS WHITE MAIZE AND CLASS YELLOW MAIZE/  
STANDAARDE VIR GRADE VAN KLAS WITMIELIES EN KLAS GEELMIELIES

Deviation/Afwyking	Maximum permissible deviation/ Maksimum toelaatbare afwyking					
	White maize/ Witmielies			Yellow maize/ Geelmielies		
	WM1	WM 2	WM3	YM1	YM2	YM3
1	2	3	4	5	6	7
1. Foreign matter [regulation 15] Vreemde voorwerpe [regulasie 15]	0,3%	0,5%	0,75%	0,3%	0,5%	0,75%
2. Defective maize kernels, above and below the 6,35 mm round-hole sieve [regulations 16]/ Gebrekkige mieliepitte, bo en onder die 6,35 mm-rondegatsif [regulasies 16]	7%	13%	30%	*	*	*
3. Defective maize kernels that can pass through the 6,35 mm round-hole sieve [regulation 16(c)]/ Gebrekkige mieliepitte wat deur die 6,35 mm- rondegatsif kan gaan [regulasie 16(c)]	*	*	*	4%	10%	30%
4. Defective maize kernels that can not pass through the 6,35 mm round-hole sieve [regulation 16(e)]/ Gebrekkige mieliepitte wat nie deur die 6,35 mm-rondegatsif kan gaan nie [regulasie 16(e)]	*	*	*	9%	20%	30%
5. Other colour maize kernels [regulation 17]/ Mieliepitte van 'n ander kleur [regulasie 17]	3%	6%	10%	2%	5%	5%
6. Deviations referred to in items 1, 3, 4 and 5 collectively: Provided that the deviations are individually within the specified limits/Afwykinge in items 1, 3, 4 en 5 bedoel, gesamentlik: Met dien verstande dat die afwykinge individueel binne die gespesifiseerde perke is	8%	16%	30%	9%	20%	30%
7. Pinked maize kernels [regulation 18]/ Verrooide mieliepitte [regulasie 18]	12%	12%	12%	*	*	*

\* Not specified/Nie gespesifiseer nie.