

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 MAIZE PRODUCTS 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;
- (b) determined that the said regulations shall come into operation on date of Publication; and
- (c) repealed the regulations published by Government Notice No. R. 515 of 26 March 1976, and the amendment thereof published by Government Notices Nos. R. 1771 of 1 September 1978, R. 61 of 12 January 1979, R. 85 of 11 January 1980, R. 792 of 27 April 1984 and R. 1739 of 17 September 1993.

SCHEDULE

Definitions

1. Unless the context otherwise indicates, any word or expression in these regulations to which a meaning has been assigned in the act shall have that meaning, and --

"approved fortification agent" means a fortification agent as defined in the regulations pertaining to the fortification of foodstuffs under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"approved micro nutrients" means a micro nutrient as defined in the regulations pertaining to the fortification of foodstuffs under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"bag" means a bag made from suitable material;

"bulk container" means a grain truck, any vehicle or container used for the transport or storage of grain products;

"bulk grain probe" means a double-tubed probe of suitable length with multiple apertures on one side of both tubes;

"bulk probe" means a double-tube probe with multiple apertures on the one side thereof or other similar bulk probe which is suitable for taking a sample of a maize product kept in bulk, by means of probing;

"consignment" means a quantity of maize products of the same kind or grade which is 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 which is loaded from a bin of a grain elevator into a ship's hold or railway truck, or if such a quantity is subdivided into different classes, each quantity of each of the different classes;

"container" means a bag or a bulk container or other suitable packing unit or container;

"enriched maize meal" means fortified maize meal that is enriched in terms of the regulations pertaining to the fortification of foodstuffs under the Foodstuffs, Cosmetics and Disinfectants Act, 1971 (Act No. 54 of 1972);

"fortified maize meal" means maize meal that is fortified in terms of the regulations pertaining to the fortification of foodstuffs under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"foreign matter" in relation to maize products, means any material which does not naturally form part of maize, but excluding a approved fortification agent or approved micro nutrients or permitted colourants and flavourants;

"industrial grade maize product" means a maize product other than a maize product specified in the Table, and which is intended for industrial processing;

"insect" means any live insect which is injurious to grain products, irrespective of the stage of development of the insect;

"inspector" means the Executive Officer or an officer appointed in terms of Section (1) of the Public Service Act;

"maize" means the seed of the plant Zea mays;

"maize product" means a commodity derived from the processing of maize and which includes enriched maize meal but excluding a precooked maize product and a maize product obtained from the wet milling process;

"permitted colourants and flavourants" means colourants and flavourants permitted under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"meal" means the product obtained by the grinding process of maize;

"sieve" means a suitable square or round hand sieve;

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

"4,0 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 4,0 mm by 4,0 mm and a thread diameter of 1,00 mm;

"2,36 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 2,36 mm by 2,36 mm and a thread diameter of 0,80 mm;

"2,0 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 2,0 mm by 2,0 mm and a thread diameter of 0,50 mm;

"1,4 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 1,4 mm by 1,4 mm and a thread diameter of 0,45 mm;

"1,18 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 1,18 mm by 1,18 mm and a thread diameter of 0,40 mm;

"1,0 mm sieve" means a sieve with a polyester or wire cloth screening bottom with apertures of 1,0 mm by 1,0 mm and a thread diameter of 0,315 mm;

Restrictions on the sale of maize products

2. (1) No person shall sell a consignment of maize products in the Republic of South Africa --
 - (a) unless the maize products are sold according to the grades referred to in regulation 3;

- (b) unless the maize products comply with the specifications regarding quality referred to in regulation 4;
- (c) unless such maize products are packed in a container and in the manner prescribed in regulation 5; and
- (d) unless such maize products are marked with the particulars and in the manner prescribed in regulation 6;

(2) The Executive officer may grant written exemption, entirely or partially, to any person on such condition as he or she may deem necessary, from the subregulation (1).

Quality Standards

Grades

3. There are 18 grades of maize products for sale in the Republic of South Africa, namely:

- (a) Fine maize bran;
- (b) Fine crushed maize;
- (c) Sifted maize meal;
- (d) Sifted crushed maize;
- (e) Coarse maize bran;
- (f) Mixed maize meal;
- (g) Maize rice;
- (h) Maize grits;
- (i) Maize flour;
- (j) Maize germ meal;
- (k) No. 1 straightrun maize;
- (l) No. 2 straightrun maize;
- (m) Unsifted crushed maize;
- (n) Unsifted maize meal;
- (o) Unspecified maize product;
- (p) Special maize meal;
- (q) Super maize meal; and
- (r) Samp.

Specifications

4. (1) All grades of maize products mentioned in regulation 3, with the exception of maize-oil shall --

- (a) be free from a mouldy, sour or rancid smell or taste;
- (b) be free from wet and caked patches;
- (c) not be of an excessive temperature;
- (d) have a moisture content not exceeding 14 per cent;
- (e) be free from foreign matter;
- (f) be free from insects; and
- (g) not be treated with a poisonous chemical substance which may render them unfit for human or animal consumption;

(2) The grades super maize meal, special maize meal; sifted maize meal and unsifted maize meal shall be fortified maize meal.

(3) Subject to the provisions of subregulations (1) and (2), all grades of maize products mentioned in regulation 3, shall also comply with the specifications for fineness and general description as set out in the Table.

Packing and marking requirements

Packing requirements

5. (a) Maize products of different grades shall not be packed in the same container.
- (b) Bags shall be filled in accordance with the mass depicted and properly closed.

Marking requirements

6. (1) Each container in which a maize product is packed shall be marked in clearly legible symbols, letters and figures with --

- (a) the name and physical address of the processor of the maize product concerned;
- (b) the net mass of the maize product concerned in that container; and
- (c) the grade of the maize product as mentioned in regulation 3:

(2) Each container in which a fortified maize product is packed, shall contain the particulars as prescribed in the regulations pertaining to the fortification of foodstuffs under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).

(3) The provisions of this regulation shall not apply with regard to a maize product which --

- (a) is sold in bulk; or
- (b) is repacked in quantities of less than 50 kg, where the mass concerned is measured in the presence of the buyer of that maize product or his agent, and is taken from a container which is marked as contemplated in subregulation (1).

Sampling

7. (1) An inspector shall identify himself/herself when he or she intends to obtain a sample of maize products and shall conform to all the requirements of the Act in respect of access, investigations, sampling and secrecy: Provided that the reference to the specific provisions of the Act does not allow the inspector to deviate from or not to conform to the other provisions of the Act.

(2) An inspector shall obtain a representative sample of maize products in the following manner and shall satisfy himself/herself that the samples so drawn are indeed representative of the consignment concerned:

- (a) In the case of a consignment in bags and other containers --
- small quantities of maize products shall be drawn by removing and sampling a number of bags or containers, which are regarded as representative from the consignment. These samples shall be collected in a container and thoroughly mixed.
- (b) In the case of a consignment in bulk --

samples of maize products which are presented for inspection in bulk containers, excluding grain elevators, shall be drawn at four to five different places with a bulk grain probe in such a manner that the samples taken will be representative of the contents of the bulk container. Samples may also be taken with a suitable container at regular intervals while a bulk container is being emptied. The collective sample from each bulk container shall be thoroughly mixed and kept separate; and

(2) Samples drawn as prescribed in subregulation (1), shall first be examined for deviations in quality standards as set out in regulation 4, which can be determined by feeling, smelling and visual inspection and shall subsequently be subjected to further examination.

(3) An inspector may at any time draw samples of maize products from any part of a grain elevator.

(4) If an inspector should notice during the course of obtaining the representative samples that any of the quantities of maize products drawn from any bag or portion of a bulk container are obviously inferior to, or differ from, that drawn from the remainder of the bags or from the other parts of the bulk container, he shall draw samples only out of such bags or portion of the bulk container from which the inferior or differing maize products have been taken, place them in a collecting tray and mix them thoroughly. Samples drawn in this manner shall, in the application of this regulation be considered as deviating samples.

(5) Any bags or containers of which the contents do not comply in any respect with the requirements of this regulation or bags and containers from which deviating samples have been taken, shall be marked with a distinguishing mark.

Obtaining of a working sample

8. (1) A working sample is obtained by dividing the representative or deviating sample with a multiple-slot divider.

(2) The division of a sample with a multiple-slot divider shall be done by --

- (a) placing the sample in an empty collecting tray;
- (b) placing an empty collecting tray underneath each of the two sets of the multiple-slot divider's chutes;
- (c) pouring the sample contained in the collecting tray referred to in paragraph (a) through the multiple-slot divider; and
- (d) repeatedly pouring that part of the sample that is collected at one selected set of chutes, through the multiple-slot divider after the collecting tray in which it was collected has been exchanged for an empty collecting tray, until a working sample of the required size is obtained.

(3) The remaining portion of the sample, after the working sample has been obtained, shall be clearly marked and safely stored separately in order to ensure traceability of the sample.

(4) A multiple-slot divider referred to in subregulation (1), shall --

- (a) be provided with chutes --
 - (i) that are fixed with the long sides of the openings against each other with the divisions between the openings of adjoining chutes not more than 3 mm thick; and

- (ii) that are arranged in such a manner that every chute empties in the opposite direction to the chutes adjoining it in order to obtain two sets of chutes equal in number that empties in opposite directions to each other;
- (b) be provided with a wall approximately 100 mm high around the top of the group of chutes.

Determination of fineness

9. The percentage of a maize product which must pass through a prescribed hand sieve, shall be determined as follows:

- (a) Draw a working sample of at least 50 g from either a representative or a deviating sample, as the case may be.
- (b) Sieve the working sample for 60 seconds by means of the prescribed sieve. Using both hands the sieve shall be held firmly on opposite sides and shall be moved briskly and continuously in an approximately circular path on a horizontal plane at such a rate that not less than 120 and not more than 140 complete revolutions are made in the prescribed 60 seconds. During the sieving process the sieve shall be so manipulated that the material on the screening bottom shall move over the entire surface of the sieve.
- (c) Determine the mass of the material which has passed through the sieve and express it as a percentage of the working sample.

Determination of the percentage of whole maize kernels

10. The percentage of whole maize kernels shall be determined as follows:

- (a) Draw a working sample of at least 50 g from either a representative or a deviating sample, as the case may be.
- (b) Sort out the working sample by hand in such a manner that the whole maize kernels are retained.
- (c) Determine the mass of whole kernels so obtained and express it as a percentage of the mass of the working sample.

Determination of the moisture content

11. The moisture content of a consignment of maize products may be determined according to any suitable method: Provided that the results thus obtained are in accordance ($\pm 0,3$ per cent) with the results obtained by means of the 72 hour oven dried method (AACC Method 44/15A/1981).

Determination of Fibre Content

12. (1) The fibre content of a consignment of maize products shall be determined on a moisture free basis by the analysis of a working sample with the aid of the apparatus described in subregulation (2), and the reagents described in subregulation (3), in accordance with the method described in subregulation (4), and by using the results of such analysis for the calculations described in subregulation (5).

(2) The apparatus required for the determination of the fibre content of a maize product are as follows:

- (a) A vacuum desiccator with glass stopcock, and with freshly activated aluminium oxide or silica gel in coarsely granulated form as a desiccator therein.
- (b) An aperiodic analytical balance of an automatic or semi-automatic type, with a capacity of 200 g and a sensitivity of 0,1 mg.

- (c) An electric hot-air oven, the temperature of which can be regulated.
 - (d) A Soxhlet extraction thimble fashioned out of cellulose fibres of which the density and thickness are sufficient to prevent flour particles from filtering through it, and of which the dimensions are such that it fits comfortably in the extractor of the Soxhlet extraction apparatus, and is not so high that when in use, it projects above the upper bend of the siphon tube of the extractor.
 - (e) An electric hotplate with variable heat control switch.
 - (f) An electric muffle furnace provided with a pyrometer and a temperature control unit.
 - (g) A porcelain Gooch crucible with a capacity of approximately 5 ml, which is packed with --
 - (i) a thin fixed layer of chloride-free asbestos on the bottom; and
 - (ii) between 15 and 20 mg of chloride-free quartz sand of such fineness that all of it will pass through a 500 micrometer sieve, but none of it will pass through a 180 micrometer sieve.
 - (h) Analytical glass funnels with diameter of approximately 100 mm at the top rim thereof, a partly grooved filtering surface and a stem at least 100 mm long and with a uniform bore.
 - (i) A flat-bottom boiling flask of borosilicate glass of which the capacity is 500 ml and the neck is heat-insulated externally.
 - (j) Glass beakers with a capacity of 600 ml each.
 - (k) A glass round-bottom boiling flask with a capacity of 500 ml.
 - (l) A spigot.
 - (m) A suction flask and suction pump.
 - (n) Filtering cloths consisting of linen with 16 weft threads and 20 warp threads per cm, cut in circular pieces with diameter of between 150 mm and 180 mm.
- (3) The reagents required for the determination of the fibre content of a maize product are as follows:
- (a) 0,1275 mol per cubic decimeter sulphuric acid solution containing 1,25 g of sulphuric acid per 100 ml solution as determined by titration, and which is free of sodium carbonate.
 - (b) 0,3125 mol per cubic decimeter sodium hydroxide solution containing 1,25 g of sodium hydroxide per 100 ml solution as determined by titration, and which is free of sodium carbonate.
- (4) The method for an analysis to determine the fibre content of a maize product is as follows:
- (a) Grind a quantity of the sample to such fineness that all the material passes through a 1 mm sieve, mix the ground quantity thoroughly and measure exactly 2,0 g thereof in a mass-measuring scoop.
 - (b) Transfer the measured quantity with the aid of a fine camel-hair brush to the extraction thimble without any loss, and cover it with a plug of high grade-fat-free cotton wool.

- (c) Deal with the measured quantity as described in regulation 13(3)(c) to (m).
- (d) Dry the extraction thimble with contents and plug in the electric hot-air oven at 130°C ($\pm 3^\circ\text{C}$) for 15 minutes, and thereafter remove the plug without any loss of the contents.
- (e) Transfer the contents of the extraction thimble into the glass beaker without any loss, and ensure that no cellulose fibres of the extraction thimble are rubbed off and find their way into the glass beaker.
- (f) Measure exactly 200 ml of the sulphuric acid solution into a glass beaker, heat it on the electric hotplate until it boils and add the boiling sulphuric acid solution to the glass beaker referred to in paragraph (e).
- (g) Heat the mixture obtained in terms of paragraph (f) on the electric hotplate so that it boils within one minute.
- (h) Place the round-bottom boiling flask filled with cold water on the glass beaker as soon as the mixture starts boiling, and regulate the temperature of the electric hotplate so that the mixture boils slowly.
- (i) Boil the mixture for exactly 30 minutes and keep the volume thereof more or less constant by the addition of boiling water as and when necessary.
- (j) Place a filtering cloth in an analytical funnel, filter the mixture through that filtering cloth immediately after expiry of the period referred to in paragraph (i), and wash the residue on the filtering cloth with hot water until the filtrate is free of acid.
- (k) Measure exactly 200 ml of the sodium hydroxide solution into the flat-bottom boiling flask, heat it on the electric hotplate until it boils and use this solution to rinse the residue on the filtering cloth into a clean glass beaker by means of a spigot which fits into the flat-bottom boiling flask.
- (l) Heat the mixture obtained in terms of paragraph (k), on the electric hotplate so that it boils within one minute.
- (m) Regulate the temperature of the electric hotplate so that the mixture boils slowly for exactly 30 minutes.
- (n) Place a clean filtering cloth in a clean analytical funnel, filter the mixture through that filtering cloth immediately after expiry of the period referred to in paragraph (m), and wash the residue with hot water until the residue on the filtrate is free of alkali.
- (o) Use hot water in a flat-bottom boiling flask to rinse the residue on the filtering cloth into a clean glass beaker by means of a spigot which fits into the flat-bottom boiling flask.
- (p) Ignite the packed Gooch crucible in the electric muffle furnace for at least 30 minutes at 600°C ($\pm 20^\circ\text{C}$) and let it cool down to room temperature after it has been removed from the electric muffle furnace.
- (q) Use a suction flask and suction pump to filter the contents of the glass beaker referred to in paragraph (o) through the Gooch crucible.
- (r) Dry the Gooch crucible with contents in the electric hot-air oven for three hours at 130°C ($\pm 3^\circ\text{C}$).

- (s) Immediately transfer the Gooch crucible with contents to the desiccator and measure the mass thereof to the nearest 0,1 mg as soon as it has cooled down to room temperature.
 - (t) Place the Gooch crucible with contents in the cold muffle furnace, increase the temperature of the oven to 600°C ($\pm 20^\circ\text{C}$) and maintain this temperature for one hour.
 - (u) Immediately transfer the Gooch crucible with contents to the desiccator and measure the mass thereof to the nearest 0,1 mg as soon as it has cooled down to room temperature.
 - (v) Duplicate the procedure described in paragraphs (a) to (u) in respect of a further quantity of the sample concerned.
- (5) The calculations referred to in subregulation (1) shall be done as follows:
- (a) Subtract the mass measured in terms of subregulation (4)(u) from the mass measured in terms of subregulation (4)(s).
 - ((b) Calculate the moisture-free mass of the quantity measured in terms of subregulation (3)(a) by using the result obtained in terms of regulation 11 with a quantity of the same sample.
 - (c) Calculate the result obtained in terms of paragraph (a), as a percentage of the result obtained in terms of paragraph (b).
 - (d) Repeat the calculations described in paragraphs (a) to (c), in respect of the analysis of the further quantity of the sample concerned.
 - (e) Calculate the average of the percentages obtained in terms of paragraphs (c) and (d), which average shall, subject to the provisions of subregulation (6), represent the fibre content of the maize product concerned.
- (6) If the percentages determined in terms of subregulation (5)(c) and (d) differ by more than 0,2 per cent from each other --
- (a) such percentages shall not be used for the purposes of subregulation (5)(e); and
 - (b) further pair of quantities of the sample concerned shall be analysed as described in subregulation (4) in order to find a pair of which the percentages concerned differ from each other by 0,2 per cent or less, and is therefore suitable for use for the purposes of subregulation (5)(e).

Determination of Fat content

13. (1) The fat content of a maize product shall be determined on a moisture free basis by the analysis of a working sample with the aid of the apparatus described in subregulation (2), in accordance with the method described in subregulation (3), and by using the results of such analysis for the calculations described in subregulation (4).
- (2) The apparatus required for the determination of the fat content of a maize product are as follows:
- (a) A vacuum desiccator with glass stopcock, and with freshly activated aluminium oxide or silica gel in coarsely granulated form as a desiccator therein.
 - (b) An aperiodic analytical balance of an automatic or semi-automatic type with a capacity of 200 g and a sensitivity of 0,1 mg.

- (c) An electric hot-air oven, the temperature of which can be regulated.
 - (d) A Soxhlet extraction apparatus, comprising a 150 ml boiling flask, an extractor with a capacity of 60 ml to the upper bend of the siphon tube, and a reflux condenser, all fitted with standard ground joints by means of which the said components fit exactly into each other.
 - (e) An electric water bath in which the water temperature can be regulated, and which is filled with distilled water to approximately 12 mm above the perforated shelf which supports the boiling flask of the extraction apparatus during extraction.
 - (f) A Soxhlet extraction thimble fashioned out of cellulose fibres of which the density and thickness are sufficient to prevent flour particles from filtering through it, and of which the dimensions are such that it fits comfortably in the extractor of the Soxhlet extraction apparatus, and is not so high that when in use, it projects above the upper bend of the siphon tube of the extractor.
- (3) The method for an analysis to determine the fat content of a maize product is as follows:
- (a) Grind a quantity of the sample to such fineness that all the material passes through a 1 mm sieve, mix the ground quantity thoroughly and measure exactly 5,0 g thereof in a mass-measuring scoop.
 - (b) Transfer the measured quantity with the aid of a fine camel-hair brush to the extraction thimble without any loss and cover it with a plug of high grade fat-free cotton wool.
 - (c) Place the extraction thimble with contents and plug in the electric hot-air oven for one hour at 130°C ($\pm 3^\circ\text{C}$), and transfer it immediately thereafter to the desiccator to cool down.
 - (d) Heat the clean dry boiling flask of the extraction apparatus in the electric hot-air oven for 30 minutes at 95°C ($\pm 3^\circ\text{C}$).
 - (e) Immediately transfer the boiling flask to the desiccator and measure the mass hereof to the nearest 0,1 mg as soon as it has cooled down to room temperature.
 - (f) Pour approximately 90 ml of redistilled petroleum ether with a boiling range of 40°C to 60°C into the boiling flask.
 - (g) Transfer the extraction thimble with contents and plug from the desiccator to the extractor.
 - (h) Assemble the various parts of the extraction apparatus and mount it in the electric water bath.
 - (i) Cover the electric water bath with lids.
 - (j) Connect the reflux condenser with a cold water supply and drainage pipe and circulate cold water through it.
 - (k) Regulate the water temperature of the water in the electric water bath so that the petroleum ether boils so slowly that the petroleum ether dripping back into the extractor from the reflux condenser will fill the extractor to the upper bend of the siphon tube within approximately 4,5 to 5 minutes.
 - (l) The total period of extraction for the analysis of the sample shall not be less than 18 hours, during which the petroleum ether shall reflux for a total period of not less than 6 hours; Provided that --

- (i) the temperature of the water in the electric water bath during the latter period shall be regulated in such a way that the interval between two successive siphonings is not less than 3,5 minutes and not more than 7 minutes; and
 - (ii) the petroleum ether shall reflux during at least the last 30 minutes of the period of extraction.
 - (m) Remove the extraction thimble from the extractor after boiling of the liquid has ceased and after the petroleum ether has as far as possible drained from the thimble into the extractor.
 - (n) Pour all the liquid in the extractor into the billing flask.
 - (o) Reassemble the different parts of the extraction apparatus mount it in the electric water bath, cover the electric water bath with lids and heat the water in the electric water bath until all the petroleum ether has refluxed into the extractor and has been recovered as redistilled petroleum ether.
 - (p) Dismantle the extraction apparatus, leave the boiling flask in the covered electric water bath, increase the temperature of the water in the electric water bath until it boils, and leave the boiling flask in the boiling water for at least 30 minutes.
 - (q) Remove the boiling flask from the electric water bath, dry the outside thereof with a clean dry cloth and heat it in the electric hot-air oven for 30 minutes at 95°C ($\pm 3^\circ\text{C}$).
 - (r) Immediately transfer the boiling flask to the desiccator and measure the mass thereof to the nearest 0,1 mg as soon as it has cooled down to room temperature.
 - (s) Repeat the heating and mass measuring procedures described in paragraphs (q) to (r) until the mass of the boiling flask remains constant.
 - (t) Duplicate the procedure described in paragraphs (a) to (s) in respect of a further quantity of the sample concerned.
- (4) The calculations referred to in subregulation (1) shall be done as follows:
- (a) Subtract the mass measured in terms of subregulation (3)(e) from the mass measure in terms of subregulation (3)(s).
 - (b) Calculate the moisture-free mass of the quantity measured in terms of subregulation (3)(a) by using the result obtained in terms of regulation 11 with a quantity of the same sample.
 - (c) Calculate the result obtained in terms of paragraph (a), as a percentage of the result obtained in terms of paragraph (b).
 - (d) Repeat the calculations described in paragraphs (a) to (c), in respect of the analysis of the further quantity of the sample concerned.
 - (e) Calculate the average of the percentages obtained in terms of paragraphs (c) and (d), which average shall, subject to the provisions of subregulation (5), represent the fat content of the maize product concerned.
- (5) If the percentages determined in terms of subregulation (4)(c) and (d) differ by more than 0,2 per cent from each other --
- (a) such percentages shall not be used for the purposes of subregulation (4)(e); and

- (b) further pairs of quantities of the sample concerned shall be analysed as described in subregulation (3) in order to find a pair of which the percentages concerned differ from each other by 0,2 per cent or less, and is therefore suitable for use for the purposes of subregulation (4)(e).

Offences and Penalties

14. Any person who contravenes or fails to comply with the Provisions of these regulations shall be guilty of an offence and upon conviction be liable to a fine or imprisonment for a period not exceeding two years or both such fine and imprisonment.

Other Legislation

15. The provisions of these regulations shall be in addition to and not in substitution for regulations published under the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).

**AANHANGSEL/ANNEXURE
TABEL/TABLE**

SAMESTELING VAN MIELIEPRODUKTE/COMPOSITION OF MAIZE PRODUCTS

Klas Mielieproduk Class of maize product	Vetinhoud volgens massa Fat content by mass (%)		Veselinhoud volgens masa Fibre content by mass (%)		Fynheid volgens massa Fineness by mass
	Minimum	Maksimum/ Maximum	Minimum	Maksimum/ Maximum	
1. Stampmelies/Samp	-	1,5	-	0,8	Hoogstens 5% mag heel graan wees, en hoogstens 5% mag deur 'n 2,35 mm-sif gaan/Not more than 5% shall be whole grain, and not more than 5% shall pass through a 2,36 mm sieve
2. Mielerys/Maize rice	-	1,5	-	0,8	Minstens 90% moet deur 'n 4,0 mm-sif gaan, en hoogstens 5% mag deur 'n 1,18 mm-sif gaan/At least 90% shall pass through a 4,0 mm sieve, and not more than 5% shall pass through a 1,18 mm sieve
3. Mieliegruis/maize grit	-	1,5	-	0,8	Minstens 90% moet deur 'n 2,0 mm-sif gaan, en hoogstens 5% mag deur 'n 850 mikrometer-sif gaan/At least 90% shall pass through a 2,0 mm sieve, and not more than 5% shall pass through a 850 micrometre sieve
4. Mieliemeel/Maize flour	-	Minder as 2,0/Less than 2,0	-	0,8	Minstens 90% moet deur 'n 300 mikrometer-sif gaan/At least 90% shall pass through a 300 micrometre sieve
5. Super meliemeel/super maize meal	-	Minder as 2,0/Less than 2,0	-	0,8	Minstens 90% moet deur 'n 1,40 mm-sif gaan, en minder as 90% moet deur 'n 300 mikrometer-sif gaan/At least 90% shall pass through a 1,4 mm sieve, and less than 90% shall pass through a 300 micrometre sieve
6. Spesiale meliemeel/Special maize meal	2,0	Minder as 3,0/Less than 3,0	-	1,2	Minstens 90% moet deur 'n 1,4 mm-sif gaan/At least 90% shall pass through a 1,4 mm sieve
7. Gesifte meliemeel/Sifted maize meal	3,0	Minder as 4,0/Less than 4,0	-	1,2	Minstens 90% moet deur 'n 1,4 mm-sif gaan/At least 90% shall pass through a 1,4 mm sieve
8. Ongesifte meliemeel/Unsifted maize meal	3,5	Minder as 4,5/Less than 4,5	Meer as 1,2/More than 1,2	2,5	Minstens 90% moet deur 'n 1,4 mm-sif gaan/At least 90% shall pass through a 1,4 mm sieve
9. No. 1-volmeliemeel/No. 1 straightrun maize meal	3,7	-	1,8	2,5	Minstens 90% moet deur 'n 2,36 mm-sif gaan/At least 90% shall pass through a 2,36 mm sieve
10. No. 2 volmeliemeel/No. 2 straightrun maize meal	3,7	-	Meer as 2,5/More than 2,5	6,5	Minstens 90% moet deur 'n 2,36 mm-sif gaan/At least 90% shall pass through a 2,36 mm sieve
11. Ongesifte gebreekte melies/Unsifted crush maize	3,2	-	-	2,5	Hoogstens 5% mag heel graan wees, en hoogstens 40% mag deur 'n 2,36 mm-sif gaan/Not more than 5% shall be whole grain, and not more than 40% shall pass through a 2,36 mm sieve

Klas Mielieproduk Class of maize product	Vetinhoud volgens massa Fat content by mass (%)		Veselinhoud volgens masa Fibre content by mass (%)		Fynheid volgens massa Fineness by mass
	Minimum	Maksimum/ Maximum	Minimum	Maksimum/ Maximum	
12. Gesifte gebreekte mielies/Sifted crushed maize	1,5	-	-	2,0	Hoogstens 5% mag heel graan wees, en hoogstens 5% mag deur 'n 1,18 mm-sif gaan/Not more than 5% shall be whole grain, and not more than 5% shall pass through a 1,18 mm sieve
13. Fyngebreekte mielies/Fine crushed maize	1,5	-	-	2,0	Minstens 90% moet deur 'n 2,36 mm-sif gaan, en hoogstens 10% mag deur 'n 1,0 mm-sif gaan/At least 90% shall pass through a 2,36 mm sieve, and not more than 10% shall pass through a 1,0 mm sieve
14. Mieliekiemmeel/Maize germ meal	10,0	-	-	-	-
15. Fyn mieliesemels/Fine maize bran	-	Minder as 10,0/Less than 10,0	Meer as 6,5/More than 6,5	17,0	Minstens 90% moet deur 'n 2,0 mm-sif gaan, en minstens 50% moet deur 'n 1,4 mm-sif gaan/At least 90% shall pass through a 2,00 mm sieve, and at least 50% shall pass through a 1,4 mm sieve
16. Growwe mieliesemels/Coarse maize bran	-	Minder as 10,0/Less than 10,0	Meer as 6,5/More than 6,5	17,0	-
17. Nywerheidsgraad mielieproduk/Industrial grade maize product	-	-	-	-	-