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GOVERNMENT NOTICES
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DEPARTMENT OF AGRICULTURE
DEPARTEMENT VAN LANDBOU

No. R. 905 **10 July 1998**

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

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

The Deputy Minister of Agriculture, acting under section 15 of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990), on behalf of the Minister of Agriculture—

(a) made the regulations in the Schedule; and

(b) determined that the said regulations shall come into operation on the date of publication thereof.

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—

"amber glossy and flinty kernels" means all kernels of durum wheat of which the endosperm is not white and mealy, or partly white and mealy and which do have a glossy and flinty appearance;

"**consignment**" means a quantity of wheat belonging to the same owner and presented at the same time, and,—

(a) in the case of wheat presented in bulk, in the same bulk container; or

(b) in the case of wheat presented in bags, in or on the same vehicle or, if not presented in or on a vehicle, presented as a unit;

"**cultivar list**" means the list of cultivars determined from time to time by the Executive Officer: Agricultural Product Standards and which is obtainable from the Executive Officer: Agricultural Product Standards, Private Bag X258, Pretoria, 0001;

"**damaged kernels**" means wheat kernels and pieces of wheat kernels contemplated in regulation 25;

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

"**falling number**" means the time in seconds according to Hagberg-Perten as a measure of the degree of Alpha-Amylase Activity in grain and flour;

"**foreign matter**" means all material other than wheat, other grain and unthreshed ears;

"**heavily frost-damaged kernels**" means wheat kernels contemplated in regulation 20;

"**hectolitre mass**" means the mass in kilogram per hectolitre;

"**insect**" in relation to wheat, means any live insect that is injurious to stored grain irrespective of the stage of development of that insect;

"**noxious seeds**" means the seeds or bits of seeds of plant species that may represent a hazard to human or animal health when consumed, including seeds of *Convolvulus spp., Crotalaria spp., Datura spp., Ipomoea purpurea, Lolium temulentum, Ricinus communis* or *Xanthium spp.;*

"**other grain**" means the kernels or pieces of kernels of barley, oats, maize, rye and sorghum;

"**screenings**" means all material that passes through a standard sieve contemplated in regulation 19 (2);

"**sprouted kernels**" means wheat kernels in which germination has proceeded so far that the skin covering the embryo has been broken or the developing rootlets are clearly visible;

"**stinking smut infection**" means wheat that—

(a) are infected with the fungus *Tilletia*; or

(b) have an unmistakable stinking smut odour; or

(c) contain wheat kernels that are smeared with stinking smut; or

(d) contain more than four stinking smut balls (or pieces of balls equal to four stinking smut balls) per 100 g wheat;

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

"**unthreshed ears**" means ears and bits of ears of other grain and wheat that still contain seeds; and

"**wheat**" means the kernels of the species *Triticum aestivum* (bread wheat and biscuit wheat), *Triticum durum* (durum wheat), *Triticum polonicum* (durum wheat) and *Triticum turgidum* (durum wheat).

Restrictions on sale of wheat

2. (1) No person shall sell a consignment of wheat in the Republic of South Africa—

(a) unless the wheat is sold according to the classes and, where applicable, subclasses set out in regulation 3;

(b) unless the wheat complies with the standards for the class and, where applicable, subclass concerned set out in regulation 4;

(c) unless the wheat, where applicable, complies with the grades of wheat and the standards for grades set out in regulations 5 and 6 respectively;

(d) unless the wheat 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 such wheat 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).

PART I

QUALITY STANDARDS

Classes and subclasses wheat

3. (1) The classes of wheat are—

(a) Class Bread Wheat;

(b) Class Biscuit Wheat;

(c) Class Durum Wheat; and

(d) Class Other Wheat.

(2) Class Bread Wheat is divided into the following three subclasses:

(a) Bread Wheat Premium;

(b) Bread Wheat Standard; and

(c) Bread Wheat Low.

Standards for classes and subclasses

4. (1) Notwithstanding the provisions of subregulations (2), (3), (4) and (5), all consignments of wheat shall—

(a) be free from any toxin, chemical or other substances that renders it unsuitable for commercial purposes: Provided that not more than 10 micorgram per kilogram aflatoxin, of which not more than 5 microgram per kilogram will be aflatoxin B1, is permissible;

(b) contain not more noxious seeds or *Ergot sclerotia* than permitted in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

(c) be free from visible mould as well as sour and rancid cereals and any other matter and be free from any odour, taste or colour not typical of undamaged and sound wheat;

(d) contain not more than two insects per two kilograms: Provided that a maximum of 10 insects per container is permitted;

(e) be free from stinking smut infection; and

(f) with the exception of Class Other Wheat, have a moisture content not exceeding 13 per cent.

(2) (a) A consignment of wheat shall be classified as Class Bread Wheat if—

(i) it consists of at least 95 per cent (m/m) of one or more of the bread wheat cultivars specified in the cultivar list;

(ii) it complies with the standards for one of the subclasses of the Class Bread Wheat set out in paragraph (b); and

(iii) it complies with the standards for Super Grade, Grade 1, Grade 2 or Utility Grade set out in regulation 6.

(b) Class Bread Wheat is classified as Subclass—

(i) Bread Wheat Premium if it contains a minimum of 12 per cent (on a 12 per cent moisture basis) protein;

(ii) Bread Wheat Standard if it contains a minimum of 10 per cent (on a 12 per cent moisture basis) protein; and

(iii) Bread Wheat Low if it contains a minimum of 9 per cent (on a 12 per cent moisture basis) protein.

(3) A consignment of wheat shall be classified as Class Biscuit Wheat if—

(a) it consists of at least 95 per cent (m/m) of one or more of the biscuit wheat cultivars specified in the cultivar list; and

(b) it complies with the standards for Grade 1 or Grade 2 set out in regulation 6.

(4) A consignment of wheat shall be classified as Class Durum Wheat if—

(a) it consists of at least 95 per cent (m/m) of one or more of the durum wheat cultivars specified in the cultivar list; and

(b) it complies with the standards for Super Grade, Grade 1 or Grade 2 set out in regulation 6.

(5) A consignment of wheat shall be classified as Class Other Wheat if it does not comply with the standards for Class Bread Wheat, Class Biscuit Wheat or Class Durum Wheat.

Grades of wheat

5. (1) The grades for the different classes of wheat shall be as follows:

(a) Class Bread Wheat—

(i) Super Grade;

(ii) Grade 1;

(iii) Grade 2; and

(iv) Utility Grade.

(b) Class Biscuit Wheat—

(i) Grade 1; and

(ii) Grade 2.

(c) Class Durum Wheat—

(i) Super Grade;

(ii) Grade 1; and

(iii) Grade 2.

(2) No grades are determined for Class Other Wheat.

Standards for grades of wheat

6. (1) Subject to the provisions of subregulations (2), (3) and (4), a consignment of wheat shall be graded as—

(a) Super Grade if the nature of deviation, specified in column 1 of Table 1 of the Annexure, in that consignment do not exceed the percentage specified in column 2 of the said table opposite the deviation concerned;

(b) Grade 1 if the nature of deviation, specified in column 1 of Table 1 of the Annexure, in that consignment do not exceed the percentage specified in column 3 of the said table opposite the deviation concerned;

(c) Grade 2 if the nature of deviation, specified in column 1 of Table 1 of the Annexure, in that consignment do not exceed the percentage specified in column 4 of the said table opposite the deviation concerned; and

(d) Utility Grade if the nature of deviation, specified in column 1 of Table 1 of the Annexure, in that consignment do not exceed the percentage specified in column 5 of the said table opposite the deviation concerned.

(2) The minimum hectolitre masses for the different grades are as follows:

(a) Super Grade—79 kg.

(b) Grade 1—76 kg.

(c) Grade 2—74 kg.

(d) Utility Grade—70 kg.

(3) (a) Super Grade, Grade 1 and Grade 2 shall, in the case of Class Bread Wheat and Class Durum Wheat, have a minimum falling number value of not less than 250 seconds;

(b) Utility Grade shall, in the case of Class Bread Wheat, have a minimum falling number value of not less than 150 seconds.

(4) Class Durum Wheat shall,—

(a) in the case of Super Grade, contain—

(i) a minimum of 14 per cent (on a 12 per cent moisture basis) protein; and

(ii) a minimum of 90 per cent amber glossy and flinty kernels;

(b) in the case of Grade 1, contain—

(i) a minimum of 13 per cent (on a 12 per cent moisture basis) protein; and

(ii) a minimum of 80 per cent amber glossy and flinty kernels; and

(c) in the case of Grade 2, contain—

(i) a minimum of 12 per cent (on a 12 per cent moisture basis) protein; and

(ii) a minimum of 70 per cent amber glossy and flinty kernels.

PART II

PACKING AND MARKING REQUIREMENTS

Packing requirements

7. Wheat of different classes shall be packed in different containers.

Marking requirements

8. (1) Every container or the accompanying sale documents of a consignment of wheat shall be marked or endorsed by means of appropriate symbols specified in subregulation (2), with—

(a) the class of the wheat;

(b) the subclass, in the case of Class Bread Wheat; and

(c) the grade, in the case of Class Bread Wheat, Class Biscuit Wheat and Class Durum Wheat.

(2) The symbols referred to in subregulation (1) shall appear in the order of class and, where applicable, subclass and grade.

(3) The symbols used to indicate the different—

(a) classes shall be—

(i) B in the case of Class Bread Wheat;

(ii) C in the case of Class Biscuit Wheat;

(iii) D in the case of Class Durum Wheat; and

(iv) O in the case of Class Other Wheat;

(b) subclasses shall be—

(i) P in the case of Subclass Bread Wheat Premium;

(ii) S in the case of Subclass Bread Wheat Standard; and

(iii) L in the case of Subclass Bread Wheat Low; and

(c) grades shall be—

(i) S in the case of Super Grade;

(ii) 1 in the case of Grade 1;

(iii) 2 in the case of Grade 2; and

(iv) UT in the case of Utility Grade.

PART III

SAMPLING

Taking of sample

9. (1) A sample of a consignment of wheat shall—

(a) in the case of wheat delivered in bags and subject to regulation 10, be obtained by sampling at least ten per cent of the bags, chosen from that consignment at random, with a bag probe: Provided that at least 25 bags in a consignment shall be sampled and where a consignment consists of less than 25 bags, all the bags in that consignment shall be sampled; and

(b) in the case of wheat 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 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 to be representative of the consignment from which it was taken.

(5) In the case of arbitration, the buyer and seller shall agree upon the bulk sampling apparatus.

Sampling if contents differ

10. (1) If, after an examination of the wheat taken from different bags in a consignment in terms of regulation 9 (1) (a), 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 with a bag probe 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 wheat in bulk has commenced, it is suspected that the consignment could be of a class, subclass 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 wheat already in the hopper shall be sampled anew with a bulk sampling apparatus or by catching, by means of a suitable container, at regular intervals quantities from the stream of wheat flowing in bulk.

Working sample

11. A working sample shall be obtained by dividing the representative sample of the consignment according to the ICC (International Association for Cereal Chemistry) 101 (Approved 1960) method.

PART IV

DETERMINATION OF OTHER SUBSTANCES

Determination of undesirable odours and harmful substances

12. A consignment of wheat or a sample of a consignment of wheat shall be sensorially assessed or chemically analysed in order to determine—

(a) whether it contains a substance that renders the wheat unfit for human consumption or for processing into or for utilisation as food or feed; and

(b) whether it has a musty, sour, rancid or other undesirable odour: Provided that a working sample of unscreened wheat that is ground in a grain mill to a fine meal may be used for the determination concerned.

PART V

DETERMINATION OF CLASS, HECTOLITRE MASS, AMBER GLOSSY AND FLINTY KERNELS, MOISTURE CONTENT, PROTEIN CONTENT AND FALLING NUMBER

Determination of class

13. The class of a consignment of wheat shall be determined as follows:

(a) Obtain a working sample of at least 500 g and screen the working sample in the manner prescribed in regulation 19.

(b) Take at least 100 g of the screened wheat and remove all other grain, unthreshed ears and foreign matter by hand.

(c) Obtain duplicate working samples of at least 25 g each after all other grain, unthreshed ears and foreign matter have been removed and separate the different cultivars.

(d) Determine the mass of each of the cultivars concerned and express the mass thus determined as a percentage of the mass of the duplicate working sample concerned.

(e) If the percentages of the duplicate working samples obtained in paragraph (d) differ by more than 0,5 per cent an additional determination shall to be performed on another 500 g working sample and the provisions of paragraphs (a), (b), (c) and (d) shall *mutatis mutandis* apply to the additional sample taken.

(f) Determine the average of the percentages obtained in paragraph (d) or (e), as the case may be.

(g) Such average represents the percentage of the particular cultivar in the consignment.

(h) Determine the sum of the percentages of all cultivars that, according to the cultivar list, belongs to the same class.

Determination of the hectolitre mass

14. (1) The hectolitre mass shall be determined by the Two-level funnel method.

(2) The standard apparatus needed for this method is the following:

(a) Any laboratory mass meter with an accuracy of 0,1 g or a four-in-one mass meter.

(b) A bucket with an internal height of 123 mm and a capacity of 500 mℓ.

(c) A two-level funnel apparatus consisting of the following:

(i) A conical funnel with a swing shutter at the narrow end, a height of 226 mm, a top diameter of 91,4 mm and a shutter hole diameter of 28,5 mm.

(ii) A solid, oval-shaped metal base with a small platform at each end of its long axis and with a metal rod screwed vertically into the base equidistant between the centres of the two platforms.

(iii) A metal arm of which one end is attached to the funnel and the other end is fitted over the metal rod around which it can be rotated.

(d) A wooden scraper 10 mm thick, 40 mm wide and at least 100 mm long and of which at least one edge shall be well rounded, but not worn.

(3) The hectolitre mass is determined as follows:

(a) Place the entire apparatus on a hard, smooth, level surface, not subject to jarring or shaking.

(b) Fill the funnel with wheat taken from the sample of the consignment and level off the wheat by scraping off the excess.

(c) Place the bucket onto the higher platform of the base so that the centre of the bucket is directly below that of the funnel shutter, the distance from the shutter opening to the top of the bucket is approximately 30 mm and the bucket rests firmly on the platform.

(d) Open the funnel shutter with a quick swing so that the wheat fills the bucket and overflows on all sides.

(e) Swing the funnel away from the bucket without disturbing the bucket in any way.

(f) The surplus wheat shall then be scraped off with a scraper by holding the bucket firmly with one hand and placing the scraper gently but firmly on the edge of the bucket and scraping the surplus off with one firm scrape straight across the rim of the bucket: Provided that when a scraper with a round as well as a sharp edge is used only the round edge may be used for scraping.

(g) Pour the contents of the bucket into the pan of the mass meter, which has been zeroed or balanced, as the case may be, and determine the hectolitre mass thereof: Provided that if a mass meter not calibrated for hectolitre mass is used, the following formula shall be used to calculated the hectolitre mass:

$$\text{Hectolitre mass} = \frac{\text{Mass (g) of wheat in a 500 m}\ell\text{ bucket}}{5}$$

(h) Repeat the procedure with the same sample: Provided that if the two readings differ, the test shall be repeated on an additional sample and the provisions of paragraphs (a) to (g) shall apply *mutatis mutandis* to such additional sample.

Determination of the percentage amber glossy and flinty kernels

15. (1) The percentage amber glossy and flinty kernels shall, in the case of Class Durum Wheat, be determined by means of a kernel-cutter as follows:

(a) Fill the cup of the kernel-cutter (knife in open position) with Class Durum Wheat from which all foreign matter, screenings and broken kernels have been removed and shake it in order to fill the 50 holes with kernels.

(b) Close the cup with one hand in such a manner that the wheat does not spill out and use the other hand to cut the kernels with the knife.

(c) Open the kernel-cutter and calculate the percentage mealy kernels by adding 1 per cent for each kernel with one or more mealy spots and 2 per cent for each kernel of which half or more is mealy.

(d) Repeat the procedure described in paragraphs (a), (b) and (c) three times and calculate the average of three determinations.

(e) Subtract the average obtained in paragraph (d) from hundred.

(f) Such percentage represents the percentage amber glossy and flinty kernels in the consignment.

(2) The kernel-cutter referred to in subregulation (1), must be capable of simultaneously cutting 50 kernels broadwise.

Determination of moisture content

16. The moisture content of a consignment of wheat may be determined according to any suitable method: Provided that the results thus obtained are in accordance (±0,3 per cent) with the results obtained by the 72 hour oven dried method [AACC (American Association of Cereal Chemists) Method 44/15A/1981].

Determination of protein content

17. The percentage of protein of a consignment of wheat may be determined according to any suitable method: Provided that the results thus obtained are in accordance (±0,3 per cent) with the results obtained by the Dumas Combustion Analysis method [AACC (American Association of Cereal Chemists) Method 46/30/1992].

Determination of falling number in wheat

18. (1) The falling number of a consignment of wheat may be determined according to any suitable method: Provided that the results thus obtained are in accordance (±5 per cent) with the results obtained by the ICC (International Association for Cereal Chemistry) Standard No. 107/1 Approved: 1968, Revised: 1995 method.

(2) If the falling number of a consignment of wheat is determined according to the ICC (International Association for Cereal Chemistry) Standard No. 107/1 Approved: 1968, Revised: 1995 method,—

(a) the sampling and determination of moisture content in the mentioned method shall be replaced with the manner prescribed in regulations 9 and 16 respectively;

(b) only the altitude corrected value shall be used; and

(c) a maximum deviation of 30 seconds shall be allowed.

(3) If the falling number of a consignment is in the case of Super Grade, Grade 1 and Grade 2 below 250 seconds; or in the case of Utility Grade below 150 seconds, and before a consignment is downgraded—

(a) an additional determination of falling number shall be done on the same working sample;

(b) the average falling number shall be determined;

(c) an additional determination on another working sample, shall be done if the average of the falling number is still below the minimum for the grade concerned; and

(d) the average of all the readings shall be regarded as the falling number of the consignment.

PART VI

DETERMINATION OF PERCENTAGE DEVIATIONS

Determination of percentage screenings

19. (1) The percentage screenings in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 500 g each.

(b) Place each sample on a standard sieve referred to in subregulation (2) and screen the sample by moving the sieve 50 strokes to and fro, alternately away from and towards the operator of the sieve, in the same direction as the long axes of the slots 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 50 strokes must be completed within 50 to 60 seconds: Provided that the screening process may also be performed in some or other container or an automatic sieving apparatus.

(c) Determine the mass of the material that has passed through the sieve and express that mass as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage screenings in the consignment.

(2) A standard sieve is a hand sieve which consists of a slotted sieve manufactured of 0,8 mm aluminium with apertures 1,786 mm (0,0703 inch) wide and 12,7 mm (0,5 inch) long, fits into a solid-bottom aluminium pan and is 330,2 mm to 334 mm in diameter.

Heavily frost-damaged wheat kernels

20. Wheat shall be classified as heavily frost damaged wheat if the wheat has been damaged by severe frost during the milk to soft dough stage and is characterised by the kernels being fairly plump but covered with small blisters over the entire kernel, extending into the crease, but excluding kernels in which blistering is confined to the back of the kernel and immature wrinkled kernels in which wrinkling has been caused by cold while the kernels were still immature.

Determination of the percentage heavily frost-damaged wheat

21. The percentage heavily frost-damaged kernels in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 25 g each of a screened sample.

(b) Remove all heavily frost-damaged kernels by hand and determine the mass of the heavily frost-damaged kernels in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage heavily frost-damaged kernels in the consignment concerned.

Determination of the percentages other grain and unthreshed ears

22. The percentage other grain and unthreshed ears in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 50 g each from a screened sample.

(b) Remove all other grain and unthreshed ears by hand and determine the mass of the other grain and unthreshed ears in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage other grain and unthreshed ears in the consignment concerned.

Determination of the percentage foreign matter

23. The percentage foreign matter in a consignment of wheat is determined as follows:

(a) Obtain duplicate working samples of at least 100 g each from a screened sample.

(b) Remove all foreign matter by hand and determine the mass of the foreign matter in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage foreign matter in the consignment concerned.

Damaged wheat kernels

24. Wheat shall be classified as damaged wheat if the wheat kernels or pieces of wheat kernels—

(a) have been damaged by insects;

(b) have been distinctly discoloured (brownish-black or black) by external heat or as a result of heating caused by internal fermentation in wheat with an excessive moisture content, excluding wheat kernels in respect of which the discolouration is confined to the germ end; and

(c) are immature and have a distinctly green colour.

Determination of the percentage damaged kernels

25. The percentage damaged kernels in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 25 g each of a screened sample for the determination of damaged kernels, other than heat-damaged kernels.

(b) Remove all damaged kernels, other than heat damaged kernels, by hand and determine the mass of the damaged kernels, other than heat damaged kernels, in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Determine the sum of the percentages obtained in paragraph (e) and regulation 26 (f).

(g) Such sum represents the percentage damaged kernels in the consignment concerned.

Determination of the percentage heat-damaged kernels

26. The percentage heat-damaged kernels in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 100 g each from a screened sample.

(b) Remove all heat-damaged kernels by hand and determine the mass of the heat-damaged kernels in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,2 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage heat-damaged kernels in the consignment concerned.

Determination of the percentage sprouted kernels

27. The percentage sprouted kernels in a consignment of wheat shall be determined as follows:

(a) Obtain duplicate working samples of at least 25 g each from a screened sample.

(b) Remove all sprouted kernels by hand and determine the mass of the sprouted kernels in each of the duplicate working samples concerned.

(c) Express the mass thus determined as a percentage of the total mass of the duplicate working sample concerned.

(d) If the percentages of the duplicate working samples differ by more than 0,5 per cent an additional determination shall be performed on another working sample and the provisions of paragraphs (a), (b) and (c) shall *mutatis mutandis* apply to the additional working sample.

(e) Determine the average of the percentages obtained in paragraph (c) or (d), as the case may be.

(f) Such average represents the percentage sprouted kernels in the consignment concerned.

PART VII

Offence and penalties

28. 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 of not exceeding R8 000 or to imprisonment for a period not exceeding two years, or to both that fine or imprisonment.

No. R. 905 10 Julie 1998

WET OP LANDBOUPRODUKSTANDAARDE, 1990 (WET No. 119 VAN 1990)

REGULASIES MET BETREKKING TOT DIE GRADERING, VERPAKKING EN MERK VAN KORING BESTEM VIR VERKOOP IN DIE REPUBLIEK VAN SUID-AFRIKA

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

(a) het die regulasies in die Bylae uitgevaardig; en

(b) bepaal dat die genoemde regulasies op die datum van publikasie hiervan 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—

"**ander graan**" die korrels of stukkies korrels van gars, hawer, mielies, rog en sorghum;

"**besending**" 'n hoeveelheid koring wat aan dieselfde eienaar behoort en wat terselfdertyd aangebied word, en—

(a) in die geval van koring in losmaat, in dieselfde losmaathouer aangebied word; of

(b) in die geval van koring in sakke, in of op dieselfde voertuig of, indien nie in of op 'n voertuig nie, as 'n eenheid aangebied word;

"**beskadigde korrels**" koringkorrels en stukkies koringkorrels in regulasie 25 beoog;

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

"**ergot sclerotia**" die sclerotia van die fungus *Claviceps purpurea;* en "**ergot**" het 'n ooreenstemmende betekenis;

"**erg rypbeskadigde korrels**" koringkorrels in regulasie 20 beoog;

"**hektolitermassa**" die massa in kilogram per hektoliter;

"**horingagtige korrels**" alle korrels van durumkoring waarvan die endosperm nie wit en melerig, of gedeeltelik wit en melerig is nie en wat 'n glasagtige en horingagtige voorkoms het;

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

"**koring**" die korrels van die spesies *Triticum aestivum* (broodkoring en beskuitjiekoring); *Triticum durum* (durumkoring), *Triticum polonicum* (durumkoring) en *Triticum turgidum* (durumkoring);

"**kultivarlys**" die lys van kultivars van tyd tot tyd deur die Uitvoerende Beampte: Landbouprodukstandaarde vasgestel en wat vanaf die Uitvoerende Beampte: Landbouprodukstandaarde, Privaatsak X258, Pretoria, 0001 verkrygbaar is;

"**ongedorste are**" are en gedeeltes van are van ander graan en koring wat nog korrels bevat;

"**sifsels**" alle materiaal wat deur 'n standaardsif in regulasie 19 (2) beoog, gaan;

"**skadelike sade**" die sade of gedeeltes van sade van plantspesies wat 'n risiko vir menslike of dierlike gesondheid kan inhou indien dit verbruik word, insluitende skade van *Convolvulus spp., Crotalaria spp., Datura spp., Ipomoea purpurea, Lolium temulentum, Ricinus communis* of *Xanthium spp.;*

"**stinkbrandbesmetting**" koring wat—

(a) besmet is met die fungus *Tilletia;* of

(b) 'n onmiskenbare stinkbrandreuk het; of

(c) koringkorrels bevat wat met stinkbrand besmeer is; of

(d) meer as vier stinkbrandballe (of stukkies balle gelyk aan vier stinkbrandballe) per 100 g koring bevat;

"**uitgeloopte korrels**" koringkorrels waarin ontkieming so ver gevorder het dat die vel wat die kiem bedek, gebreek is of die ontwikkelende worteltjies duidelik sigbaar is;

"**valgetal**" die tydperk in sekondes volgens Hagberg-Perten as 'n maatstaf van die graad van Alfa-amilase aktiwiteit in graan en meel; en

"**vreemde stowwe**" alle materiaal behalwe koring, ander graan en ongedorste are.

Beperkings op verkoop van koring

2. (1) Niemand mag 'n besending koring in die Republiek van Suid-Afrika verkoop nie—

(a) tensy die koring verkoop word volgens die klasse en, waar van toepassing, subklasse in regulasie 3 uiteengesit;

(b) tensy die koring voldoen aan die standaarde vir die betrokke klas en, waar van toepassing, subklas in regulasie 4 uiteengesit;

(c) tensy die koring, waar van toepassing, voldoen aan die grade van koring en standaarde vir grade in regulasies 5 en 6 onderskeidelik uiteengesit;

(d) tensy die koring verpak is volgens die verpakkingsvereistes in regulasie 7 uiteengesit;

(e) tensy die houers of verkoopsdokumente, na gelang van die geval, gemerk is in ooreenstemming met die merkvereistes in regulasie 8 uiteengesit; en

(f) indien sodanige koring '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 bepalings van subregulasie (1) vrystel.

DEEL I

GEHALTESTANDAARDE

Klasse en subklasse koring

3. (1) Die klasse koring is—

(a) Klas Broodkoring;

(b) Klas Beskuitjiekoring;

(c) Klas Durumkoring; en

(d) Klas Ander Koring.

(2) Klas Broodkoring word in die volgende drie subklasse ingedeel:

(a) Broodkoring Premie;

(b) Broodkoring Standaard; en

(c) Broodkoring Laag.

Standaarde vir klasse en subklasse

4. (1) Nieteenstaande die bepalings van subregulasies (2), (3), (4) en (5), moet alle besendings koring—

(a) vry wees van enige toksiene, chemiese of ander stowwe wat dit ongeskik vir kommersiële doeleindes maak: Met dien verstande dat hoogstens 10 mikrogram per kilogram aflatoksien waarvan aflatoksien B1 hoogstens 5 mikrogram per kilogram is, toelaatbaar is;

(b) nie meer skadelike sade of *Ergot sclerotia* bevat as wat toegelaat word kragtens die Wet op Voedingsmiddels, Skoonheidsmiddels en Ontsmettingsmiddels, 1972 (Wet No. 54 van 1972) nie;

(c) vry wees van sigbare skimmel sowel as van suur- en galsterige graan en enige ander materiaal, en enige reuk, smaak of kleur wat nie eie aan ongeskonde en gesonde koring is nie;

(d) hoogstens twee insekte per twee kilogram bevat: Met dien verstande dat 'n maksimum van 10 insekte per houer toelaatbaar is;

(e) vry wees van stinkbrandbesmetting; en

(f) met die uitsondering van Klas Ander Koring, 'n voginhoud van hoogstens 13 persent hê.

(2) (a) 'n Besending koring word as Klas Broodkoring geklassifiseer indien—

(i) dit bestaan uit minstens 95 persent (m/m) van een of meer van die broodkoringkultivars in die kultivarlys bepaal; en

(ii) dit voldoen aan die standaarde vir een van die subklasse van Klas Broodkoring in paragraaf (b) uiteengesit; en

(iii) dit voldoen aan die standaarde vir Supergraad, Graad 1, Graad 2 of Utiliteitsgraad in regulasie 6 uiteengesit.

(b) Klas Broodkoring word geklassifiseer as Subklas—

(i) Broodkoring Premie indien dit 'n minimum van 12 persent (op 'n 12 persent vogbasis) proteïen bevat;

(ii) Broodkoring Standaard indien dit 'n minimum van 10 persent (op 'n 12 persent vogbasis) proteïen bevat; of

(iii) Broodkoring Laag indien dit 'n minimum van 9 persent (op 'n 12 persent vogbasis) proteïen bevat.

(3) 'n Besending koring word as Klas Beskuitjiekoring geklassifiseer indien—

(a) dit bestaan uit minstens 95 persent (m/m) van een of meer van die beskuitjiekoringkultivars in die kultivarlys bepaal; en

(b) dit voldoen aan die standaarde vir Graad 1 of Graad 2 in regulasie 6 uiteengesit.

(4) 'n Besending koring word as Klas Durumkoring geklassifiseer indien—

(a) dit bestaan uit minstens 95 persent (m/m) van een of meer van die durumkoringkultivars in die kultivarlys bepaal; en

(b) dit voldoen aan die standaarde vir Supergraad, Graad 1 of Graad 2 in regulasie 6 uiteengesit.

(5) 'n Besending koring word as Klas Ander Koring geklassifiseer indien dit nie voldoen aan die standaarde vir Klas Broodkoring, Klas Beskuitjiekoring of Klas Durumkoring nie.

Grade koring

5. (1) Die grade vir die verskillende klasse koring is soos volg:

(a) Klas Broodkoring—

(i) Supergraad;

(ii) Graad 1;

(iii) Graad 2; en

(iv) Utiliteitsgraad.

(b) Klas Beskuitjiekoring—

(i) Graad 1; en

(ii) Graad 2.

(c) Klas Durumkoring—

(i) Supergraad;

(ii) Graad 1; en

(iii) Graad 2.

(2) Geen grade word vir Klas Ander Koring bepaal nie.

Standaarde vir grade koring

6. (1) Behoudens die bepalings van subregulasies (2), (3) en (4) word 'n besending koring gegradeer as—

(a) Supergraad indien die aard van afwyking, in kolom 1 van Tabel 1 van die Aanhangsel gespesifiseer, in daardie besending nie die persentasie in kolom 2 van genoemde tabel teenoor die betrokke afwyking gespesifiseer, oorskry nie;

(b) Graad 1 indien die aard van afwyking, in kolom 1 van Tabel 1 van die Aanhangsel gespesifiseer, in daardie besending nie die persentasie in kolom 3 van genoemde tabel teenoor die betrokke afwyking gespesifiseer, oorskry nie;

(c) Graad 2 indien die aard van afwyking, in kolom 1 van Tabel 1 van die Aanhangsel gespesifiseer, in daardie besending nie die persentasie in kolom 4 van genoemde tabel teenoor die betrokke afwyking gespesifiseer, oorskry nie; en

(d) Utiliteitsgraad indien die aard van afwyking, in kolom 1 van Tabel 1 van die Aanhangsel gespesifiseer, in daardie besending nie die persentasie in kolom 5 van genoemde tabel teenoor die betrokke afwyking gespesifiseer, oorskry nie.

(2) Die minimum hektolitermassas vir die verskillende grade is soos volg:

(a) Supergraad—79 kg.

(b) Graad 1—76 kg.

(c) Graad 2—74 kg.

(d) Utiliteitsgraad—70 kg.

(3) (a) Supergraad, Graad 1 en Graad 2 moet, in die geval van Klas Broodkoring en Klas Durumkoring, 'n minimum valgetalwaarde hê van nie minder as 250 sekondes nie; en

(b) Utiliteitsgraad moet, in die geval van Klas Broodkoring, 'n minimum valgetalwaarde hê van nie minder as 150 sekondes nie.

(4) Klas Durumkoring moet—

(a) in die geval van Supergraad,—

(i) 'n minimum of 14 persent (op 'n 12 persent vogbasis) proteïen bevat; en

(ii) 'n minimum van 90 persent horingagtige korrels bevat;

(b) in die geval van Graad 1,—

(i) 'n minimum of 13 persent (op 'n 12 persent vogbasis) proteïen bevat; en

(ii) 'n minimum van 80 persent horingagtige korrels bevat; en

(c) in die geval van Graad 2,—

(i) 'n minimum van 12 persent (op 'n 12 persent vogbasis) proteïen bevat; en

(ii) 'n minimum van 70 persent horingagtige korrels bevat.

DEEL II

VERPAKKINGS- EN MERKVEREISTES

Verpakkingsvereistes

7. Koring van verskillende klasse moet in verskillende houers verpak word.

Merkvereistes

8. (1) Elke houer of die meegaande verkoopsdokumente van 'n besending koring moet gemerk of geëndosseer word, met behulp van gepaste simbole in subregulasie (2) bepaal, met—

(a) die klas van die koring;

(b) die subklas, in die geval van Klas Broodkoring; en

(c) die graad, in die geval van Klas Broodkoring, Klas Beskuitjiekoring en Klas Durumkoring.

(2) Die simbole in subregulasie (1) bedoel moet in die orde van klas en, waar van toepassing, subklas, en graad, aangedui word.

(3) Die simbole gebruik as aanduiding van die verskillende—

(a) klasse is—

(i) B in die geval van Klas Broodkoring;

(ii) C in die geval van Klas Beskuitjiekoring;

(iii) D in die geval van Klas Durumkoring; en

(iv) O in die geval van Klas Ander Koring;

(b) subklasse is—

(i) P in die geval van Subklas Broodkoring Premie;

(ii) S in die geval van Subklas Broodkoring Standaard; en

(iii) L in die geval van Subklas Broodkoring Laag; en

(c) grade is—

(i) S in die geval van Super Graad;

(ii) 1 in die geval van Graad 1;

(iii) 2 in die geval van Graad 2; en

(iv) UT in die geval van Utiliteitsgraad.

DEEL III

MONSTERNEMING

Verkryging van monster

9. (1) 'n Monster van 'n besending koring word—

(a) in die geval van koring 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 koring 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 losmaat-monsternemingsapparaat 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 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.

(5) In die geval van arbitrasie, moet die koper en verkoper oor die losmaatmonsternemingsapparaat ooreenkom.

Monsterneming indien inhoud verskil

10. (1) Indien dit blyk, na 'n ondersoek van die koring wat ingevolge regulasie 9 (1) (a) 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 met 'n saksteker bemonster ten einde sodanige skeiding 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 koring in losmaat begin is, daar vermoed word dat die besending van 'n ander klas, subklas 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 koring wat reeds in die opvangbak gestort is, van vooraf met 'n losmaatmonsternemingsapparaat bemonster of deur met 'n geskikte houer, met gereelde tussenposes, uit die stroom van die koring wat in losmaat vloei, op te vang.

Werkmonster

11. 'n Werkmonster word verkry deur die verteenwoordigende monster van die besending volgens die ICC ("International Association for Cereal Chemistry") 101 (Goedgekeur 1960) metode, te verdeel.

DEEL IV

BEPALING VAN ANDER STOWWE

Bepaling van ongewenste reuke en skadelike stowwe

12. 'n Besending koring of monster van 'n besending koring word sintuiglik beoordeel of skeikundig ontleed ten einde te bepaal—

(a) of dit 'n stof bevat wat die koring ongeskik maak vir menslike verbruik of vir verwerking tot of aanwending as voedsel of voer; en

(b) of dit 'n muwwe, suur, galsterige of ander ongewenste reuk het: Met dien verstande dat 'n werkmonster ongesifte koring met 'n graanmeul tot 'n fyn meel gemaal vir die betrokke beoordeling gebruik kan word.

DEEL V

BEPALING VAN KLAS, HEKTOLITERMASSA, HORINGAGTIGE KORRELS, VOGINHOUD, PROTEÏENINHOUD EN VALGETAL

Bepaling van klas

13. Die klas van 'n besending koring word soos volg bepaal:

(a) Verkry 'n werkmonster van minstens 500 g en sif die werkmonster op die wyse soos in regulasie 19 bepaal.

(b) Neem minstens 100 g van die gesifte koring en verwyder alle ander graan, ongedorste are en vreemde stowwe met die hand.

(c) Verkry duplikaat werkmonsters van minstens 25 g elk nadat alle ander graan, ongedorste are en vreemde stowwe verwyder is en skei die verskillende kultivars.

(d) Bepaal die massa van elk van die betrokke kultivars en druk die massa aldus bepaal uit as 'n persentasie van die betrokke duplikaatwerkmonster.

(e) Indien die persentasies van die duplikaatwerkmonsters in paragraaf (d) verkry met meer as 0,5 persent verskil, moet 'n addisionele bepaling op 'n ander 500 g werkmonster gedoen word en is die bepalings van paragrawe (a), (b), (c) en (d) *mutatis mutandis* op die addisionele monster van toepassing.

(f) Bepaal die gemiddeld van die persentasies in paragraaf (d) of (e), na gelang van die geval, verkry.

(g) Sodanige gemiddeld verteenwoordig die persentasie van die spesifieke kultivar in die besending.

(h) Bepaal die som van die persentasies van alle kultivars wat volgens die kultivarlys aan dieselfde klas behoort.

Bepaling van hektolitermassa

14. (1) Die hektolitermassa van 'n besending koring word bepaal volgens die Tweevlaktregtermetode.

(2) Die standaardapparaat vir hierdie metode is die volgende:

(a) Enige laboratoriummassameter met 'n akkuraatheid van 0,1 g of 'n vier-in-een-massameter.

(b) 'n Emmer met 'n binnehoogte van 123 mm en 'n inhoudsvermoë van 500 mℓ.

(c) 'n Tweevlaktregterapparaat wat uit die volgende bestaan:

(i) 'n Keëlvormige tregter met 'n swaaiklep aan die nou end, 'n hoogte van 226 mm, 'n bo-deursnee van 91,4 mm en 'n klepopeningdeursnee van 28,5 mm.

(ii) 'n Stewige ovaalvormige metaalvoetstuk met 'n verhogie aan elke punt van die lang-as daarvan en met 'n ronde metaalstaaf wat vertikaal in die voetstuk halfpad tussen die middelpunte van die twee verhogies ingeskroef word.

(iii) 'n Metaalarm waarvan een end aan die tregter en die ander end oor die regop metaalstaaf waaromheen dit kan swaai, geheg word.

(d) 'n Houtskraper 10 mm dik, 40 mm breed en minstens 100 mm lank en waarvan minstens een van die rande goed gerond, maar nie afgeslyt is nie.

(3) Die hektolitermassa word soos volg bepaal:

(a) Plaas die apparaat in sy geheel op 'n harde, gladde, gelyk oppervlak wat nie gestamp of geskud kan word nie.

(b) Vul die tregter met ongesifte koring wat verkry is vanaf die monster van die besending en skraap dit af sodat die tregter net gelyk vol is.

(c) Plaas dan die emmer op die hoogste verhogie van die voetstuk sodat die bodem se middelpunt direk onder dié van die tregterklep is, die afstand van die klepopening tot by die rand van die emmer ongeveer 30 mm is en die emmer vas op die verhogie staan.

(d) Stoot die tregterklep met 'n vinnige swaaibeweging wyd oop sodat die koring die emmer volmaak en aan alle kante oorloop.

(e) Swaai die tregter weg van die emmer sonder om die emmer te stamp of teen die emmer te stoot.

(f) Skraap dan die oortollige koring met 'n skraper van die emmer af deur die emmer stewig met die een hand vas te hou, en die skraper versigtig maar ferm op die rand van die emmer te plaas en met een stewige beweging dwarsoor die rand te stoot sodat die emmer net gelykvol met koring is: Met dien verstande dat indien 'n skraper 'n ronde sowel as 'n skerp rand het, slegs die ronde rand vir die skraapwerk gebruik mag word.

(g) Gooi die inhoud van die emmer in die pan van die massameter wat, na gelang van die geval, vooraf gezero of gebalanseer is en bepaal die hektolitermassa daarvan: Met dien verstande dat indien 'n massameter gebruik word wat nie vir hektoliter gekalibreer is nie, die hektolitermassa bereken word deur van die volgende formule gebruik te maak:

$$\text{Hektolitermassa} = \frac{\text{Massa (g) van koring in 500 m}\ell\text{-emmer}}{5}$$

(h) Herhaal die prosedure met dieselfde monster: Met dien verstande dat as die twee lesings verskil, die toets met 'n addisionele monster herhaal moet word en die bepalings van paragrawe (a) tot (g) is *mutatis mutandis* op daardie addisionele monster van toepassing.

Bepaling van persentasie horingagtige korrels

15. (1) Die persentasie horingagtige korrels word, in die geval van Klas Durumkoring, met behulp van 'n korrelsnyer soos volg bepaal:

(a) Vul die korrelsnyer se bakkie (mes in oop posisie) met Klas Durumkoring waaruit alle vreemde stowwe, sifsels en gebreekte korrels verwyder is en skud dit sodat die korrels die 50 gaatjies vul.

(b) Maak die bakkie met een hand toe op so 'n wyse dat die koring nie uitval nie en gebruik die ander hand om die korrels met die mes deur te sny.

(c) Maak die korrelsnyer oop en bereken die persentasie melerige korrels deur 1 persent vir elke korrel met een of meer melerige kolletjie en 2 persent vir elke korrel waarvan die helfte of meer melerig is bymekaar te tel.

(d) Herhaal die prosedure in paragrawe (a), (b) en (c) beskryf drie maal en bereken die gemiddeld van die drie bepalings.

(e) Trek die gemiddelde persentasie in paragraaf (d) verkry van 100 af.

(f) Sodanige persentasie verteenwoordig die persentasie horingagtige korrels in die besending.

(2) Die korrelsnyer waarna daar in subregulasie (1) verwys word, moet 50 korrels op een slag in die breedte kan deur sny.

Bepaling van voginhoud

16. Die voginhoud van 'n besending koring kan volgens enige geskikte metode bepaal word: Met dien verstande dat die resultate aldus verkry in ooreenstemming (±0,3 persent) is met die resultate verkry deur die 72 uur oonddroogmetode [AACC ("American Association of Cereal Chemists") Metode 44/15A/1981].

Bepaling van proteïeninhoud

17. Die persentasie proteïen van 'n besending koring kan volgens enige geskikte metode bepaal word: Met dien verstande dat die resultate aldus verkry in ooreenstemming (±0,3 persent) is met die resultate verkry deur die Dumas ontbrandingsanalisemetode [AACC ("American Association of Cereal Chemists") Metode 46/30/1992].

Bepaling van valgetal in koring

18. (1) Die valgetal van 'n besending koring kan volgens enige geskikte metode bepaal word: Met dien verstande dat die resultate aldus verkry in ooreenstemming (±5 persent) is met die resultate verkry deur die ICC ("International Association for Cereal Chemistry") -Standaard No. 107/1 Goedgekeur: 1968, Hersien: 1995 metode.

(2) Indien die valgetal van 'n besending koring volgens die ICC ("International Association for Cereal Chemistry") -Standaard No. 107/1 Goedgekeur: 1968, Hersien: 1995 metode bepaal word, word—

(a) monsterneming en die bepaling van die voginhoud in genoemde metode met die wyse voorgeskryf in regulasies 9 en 16 onderskeidelik, vervang;

(b) slegs die waardes aangepas vir hoogte bo seevlak gebruik; en

(c) 'n maksimum afwyking van 30 sekondes toegelaat.

(3) Indien die valgetalwaarde van 'n besending koring in die geval van Supergraad, Graad 1 of Graad 2, laer as 250 sekondes is; of in die geval van Utiliteitsgraad, laer as 150 sekondes is, en alvorens 'n besending afgegradeer word,—

(a) moet 'n addisionele bepaling van valgetal op dieselfde werkmonster gedoen word;

(b) moet die gemiddelde valgetal bereken word;

(c) moet, wanneer die gemiddelde valgetal steeds laer as die voorgeskrewe minimum vir die betrokke graad is, 'n addisionele bepaling op 'n ander werkmonster gedoen word; en

(d) moet die gemiddeld van al die lesings as die valgetal van die betrokke besending geag word.

DEEL VI

BEPALING VAN PERSENTASIE AFWYKINGS

Bepaling van die persentasie sifsels

19. (1) Die persentasie sifsels in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 500 g elk.

(b) Plaas elke monster op 'n standaardsif in subregulasie (2) bedoel, sif die monster deur die sif 50 stote heen en weer, beurtelings weg van en terug na die hanteerder van die sif, te beweeg in dieselfde rigting as die lengte-asse van die openings van die sif. 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 50 stote moet binne 50 tot 60 sekondes voltooi word: Met dien verstande dat die sifproses ook op die voorgeskrewe wyse in een of ander houer of 'n outomatiese sifapparaat gedoen kan word.

(c) Bepaal die massa van die materiaal wat deur die sif gegaan het en druk daardie massa uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) of (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie sifsels in die betrokke besending.

(2) 'n Standaardsif is 'n handsif wat bestaan uit 'n gleufsif vervaardig van 0,8 mm aluminium met openings 1,786 mm (0,0703 duim) wyd en 12,7 mm (0,5 duim) lank, wat in 'n aluminiumpan met 'n soliede bodem pas en 330,2 mm tot 334 mm in deursnee is.

Erg rypbeskadigde korrels

20. Koring word as erg rypbeskadigde koring geklassifiseer indien die koring gedurende die melk- tot sagte deegstadium deur strawwe ryp beskadig is en daardeur gekenmerk word dat die korrels taamlik vet, maar heeltemal tot in die groef met klein blasies bedek is, maar uitgesonderd korrels waarin rypbeskadiging beperk is tot die rugkant van die korrel, en onryp gerimpelde koringkorrels waarin rimpeling deur koue veroorsaak is terwyl die korrels nog onryp was.

Bepaling van persentasie erg rypbeskadigde koring

21. Die persentasie erg rypbeskadigde korrels in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 25 g elk van 'n gesifte monster.

(b) Verwyder alle erg rypbeskadigde korrels met die hand en bepaal die massa van die erg rypbeskadigde korrels in elk van die betrokke duplikaatwerkmonsters.

(c) Druk die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) of (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie erg rypbeskadigde korrels in die betrokke besending.

Bepaling van persentasie ander graan en ongedorste are

22. Die persentasie ander graan en ongedorste are in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 50 g elk van 'n gesifte monster.

(b) Verwyder alle ander graan en ongedorste are met die hand en bepaal die massa van die ander graan en ongedorste are in elk van die betrokke duplikaatwerkmonsters.

(c) Druk die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) en (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie ander graan en ongedorste are in die besending.

Bepaling van persentasie vreemde stowwe

23. Die persentasie vreemde stowwe in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 100 g elk van 'n gesifte monster.

(b) Verwyder alle vreemde stowwe met die hand en bepaal die massa van die vreemde stowwe in elk van die betrokke duplikaatwerkmonsters.

(c) Druk die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) en (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie vreemde stowwe in die besending.

Beskadigde korrels

24. Koring word as beskadigde koring geklassifiseer indien die koring korrels of stukkies koringkorrels—

(a) deur insekte beskadig is;

(b) deur hitte van buite af of as gevolg van hitte deur binnegisting in koring met 'n oormaat vog duidelik verkleur is (bruin-swart of swart), uitgesonderd koringkorrels ten opsigte waarvan die verkleuring tot die kiem-end beperk is; en

(c) onryp is en 'n duidelike groen kleur het.

Bepaling van persentasie beskadigde korrels

25. Die persentasie beskadigde korrels in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 25 g elk van 'n gesifte monster vir die bepaling van beskadigde korrels, anders as hittebeskadigde korrels.

(b) Verwyder alle beskadigde korrels, anders as hittebeskadigde korrels, met die hand en bepaal die massa van die beskadigde korrels, anders as hittebeskadigde korrels, in elk van die betrokke duplikaatwerkmonsters.

(c) Druk die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) of (d), na gelang van die geval, verkry.

(f) Bepaal die som van die persentasies in paragraaf (e) en regulasie 26 (f) verkry.

(g) Sodanige som verteenwoordig die persentasie beskadigde korrels in die besending.

Bepaling van persentasie hittebeskadigde korrels

26. Die persentasie hittebeskadigde korrels in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 100 g elk van 'n gesifte monster.

(b) Verwyder alle hittebeskadigde korrels met die hand en bepaal die massa van die hittebeskadigde korrels in elk van die betrokke duplikaatwerkmonsters.

(c) Druk die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaatwerkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,2 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) of (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie hittebeskadigde korrels in die besending.

Bepaling van persentasie uitgeloopte korrels

27. Die persentasie uitgeloopte korrels in 'n besending koring word soos volg bepaal:

(a) Verkry duplikaatwerkmonsters van minstens 25 g elk van 'n gesifte monster.

(b) Verwyder alle uitgeloopte korrels met die hand en bepaal die massa van die uitgeloopte korrels in elk van die betrokke duplikaatwerkmonsters.

(c) Druk van die massa aldus bepaal uit as 'n persentasie van die totale massa van die betrokke duplikaat-werkmonster.

(d) Indien die persentasies van die duplikaatwerkmonsters met meer as 0,5 persent verskil moet 'n addisionele bepaling op 'n ander werkmonster gedoen word en is die bepalings van paragrawe (a), (b) en (c) *mutatis mutandis* op die addisionele monster van toepassing.

(e) Bepaal die gemiddeld van die persentasies in paragraaf (c) of (d), na gelang van die geval, verkry.

(f) Sodanige gemiddeld verteenwoordig die persentasie uitgeloopte korrels in die besending.

DEEL VII

Oortreding en strawwe

28. Iemand wat 'n bepaling van hierdie regulasie 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 daardie boete sowel as daardie gevangenisstraf.

ANNEXURE • AANHANGSEL

TABLE 1 • TABEL 1

Standards for grades of Class Bread Wheat, Class Biscuit Wheat and Class Durum Wheat • Standaarde vir grade van Klas Broodkoring, Klas Beskuitjiekoring en Klas Durumkoring

Nature of deviation Aard van afwyking	Maximum percentage permissible deviation (m/m) Maksimum persentasie toelaatbare afwyking (m/m)			
	Super Grade Super Graad	Grade 1 Graad 1	Grade 2 Graad 2	Utility Grade/ Utiliteits-graad
1	2	3	4	5
(a) Heavily frost-damaged kernels/Erg rypbeskadigde korrels ..... [Reg. 20 and/en 21]	15	15	15	30
(b) Screenings/Sifsels ..... [Reg. 19]	5	5	5	10
(c) Other grain and unthreshed ears/Ander graan en ongedorste are [Reg. 22]	1	1	1	4
(d) Gravel, stones, turf and glass/Gruis, klippies, turf en glas [Reg. 23]	0,5	0,5	0,5	0,5
(e) Foreign matter including gravel, stones, turf and glass: Provided that such deviations are individually within the limits specified in item (d)/Vreemde stowwe met inbegrip van gruis, klippies, turf en glas: Met dien verstande dat sodanige afwykings individueel binne die perke in item (d) gespesifiseer is ..... [Reg. 23]	1	1	1	3
(f) Heat-damaged kernels/Hittebeskadigde korrels ..... [Reg. 26]	0,5	0,5	0,5	0,5
(g) Damaged kernels including heat-damaged kernels: Provided that such deviations are individually within the limits specified in item (f)/Beskadigde korrels met inbegrip van hittebeskadigde korrels: Met dien verstande dat sodanige afwykings individueel binne die perke in item (f) gespesifiseer is	2	2	2	5
(h) Sprouted kernels: Provided that the minimum falling number value prescribed in regulation 6 (3) for the grade concerned at least be complied with/Uitgeloopte korrels: Met dien verstande dat minstens aan die minimum valgetalwaarde in regulasie 6 (3) vir die betrokke graad voorgeskryf, voldoen word ..... [Reg. 27]	2	2	2	5

Nature of deviation Aard van afwyking	Maximum percentage permissible deviation (m/m) Maksimum persentasie toelaatbare afwyking (m/m)			
	Super Grade Super Graad	Grade 1 Graad 1	Grade 2 Graad 2	Utility Grade/ Utiliteits-graad
1	2	3	4	5
(i) Deviations in items (g) and (h) collectively: Provided that such deviations are individually within the limits of the said items/ Afwykings in items (g) en (h) gesamentlik: Met dien verstande dat sodanige afwykings individueel binne die perke van genoemde items is	2	2	2	5
(j) Deviations in items (b), (c), (e) and (i) collectively: Provided that such deviations are individually within the limits of the said items/ Afwykings in items (b), (c), (e) en (i) gesamentlik: Met dien verstande dat sodanige afwykings individueel binne die perke van genoemde items is	5	5	5	10