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GOVERNMENT NOTICES.

The following Government Notices are published for general information:—

DEPARTMENT OF AGRICULTURE.

✱ No. 2107.] [15 October 1954.

WINTER CEREAL SCHEME.

GRADING OF RYE.

His Excellency the Governor-General has, under the powers vested in him by section *forty-three* of the Marketing Act, 1937 (Act No. 26 of 1937), as amended, made the regulations set forth in the Schedule hereto relating to the grading of rye according to quality. The said regulations shall come into force on the first day of November, 1954, in substitution for the regulations published under Government Notice No. 2259 of the 21st October, 1949.

SCHEDULE.

1. (1) All rye shall, subject to the provisions of sub-regulations (2) and (3), be graded in accordance with the requirements specified for the respective grades in the following table:—

Grade	Minimum Bushel Weight.	Maximum Percentage of Moisture.	Maximum Percentage of Wheat by Weight.	Impurities.			Maximum Percentage of Total Impurities by Weight.	Maximum Percentage of Broken Rye by Weight.	Maximum Percentage of Damaged Rye by Weight.	Maximum Percentage of Total Impurities *plus* broken Rye *plus* Damaged Rye by Weight.
				Maximum Percentage of Vetch by Weight.	Maximum Percentage of Barley Oats and Unthreshed Ears by Weight.	Maximum Percentage of Foreign Matter by Weight.				
	lb.									
1.....	58	13·0	20·0	1·5	3·0	1·0	4·0	7·0	5·0	7·5
2.....	56	13·0	20·0	2·5	5·0	1·5	5·0	9·0	6·0	9·0
3.....	54	13·0	20·0	4·5	8·0	2·5	8·0	11·0	8·0	11·5
Under-grade	Less than 54 lb.	More than 13·0%	More than 20·0%	More than 4·5%	More than 8·0%	More than 2·5%	More than 8·0%	More than 11·0%	More than 8·0%	More than 11·5%

DEPARTEMENT VAN LANDBOU.

✱ No. 2107.] [15 Oktober 1954.

WINTERGRAANSKEMA.

GRADERING VAN ROG.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemarkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies uiteengesit in die Bylae hiervan gemaak met betrekking tot die gradering van rog volgens kwaliteit. Genoemde regulasies tree op die eerste dag van November 1954 in werking ter vervanging van die regulasies afgekondig by Goewermentskennisgewing No. 2259 van 21 Oktober 1949.

BYLAE.

1. (1) Alle rog word behoudens die bepalings van sub-regulasies (2) en (3) ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel gespesifiseer, gegradeer:—

Graad.	Minimum skepel-gewig.	Maksimum persentasie vog.	Maksimum persentasie koring, volgens gewig.	Onsuiwerhede.			Maksimum persentasie totale onsuiwer-hede, volgens gewig.	Maksimum persentasie gebreekte rog, volgens gewig.	Maksimum persentasie beskadigde rog, volgens gewig.	Maksimum persentasie totale onsuiwer-hede, *plus* gebreekte rog, *plus* beskadigde rog, volgens gewig.
				Maksimum persentasie wilde-ertjies, volgens gewig.	Maksimum persentasie gars, hawer en ongedorste are, volgens gewig.	Maksimum persentasie vreemde materiaal, volgens gewig.				
	lb.									
1.....	58	13·0	20·0	1·5	3·0	1·0	4·0	7·0	5·0	7·5
2.....	56	13·0	20·0	2·5	5·0	1·5	5·0	9·0	6·0	9·0
3.....	54	13·0	20·0	4·5	8·0	2·5	8·0	11·0	8·0	11·5
Onder-graad...	Minder as 54 lb.	Meer as 13·0%	Meer as 20·0%	Meer as 4·5%	Meer as 8·0%	Meer as 2·5%	Meer as 8·0%	Meer as 11·0%	Meer as 8·0%	Meer as 11·5%

(2) Any rye which contains rye or other grain kernels damaged by insects injurious to rye, but is free from live insects injurious to rye, shall be graded one grade lower than that determined in accordance with the table set out in sub-regulation (1); provided that rye containing rye or other grain kernels damaged by insects injurious to rye and received by a purchaser on or after the first day of May in any year shall not be degraded in accordance with the terms of this sub-regulation if that rye was threshed before the said first day of May in that year or at any time during a previous year.

(3) Any rye which does not conform to the requirements for one or other of the grades set out in the table in sub-regulation (1), or which—

(*a*) cannot be used for the purpose of milling therefrom sound meal or flour fit for human consumption; or

(*b*) is smutty; or

(*c*) has a musty, mouldy, sour or any other objectionable odour; or

(*d*) has been treated with any chemical and has thereby been rendered commercially objectionable; or

(*e*) is commercially objectionable because it contains any poisonous weeds or weed seeds or any chemical or other substance likely to be deleterious to the health of human beings; or

(*f*) complies with the requirements for grade 3, but contains rye or other grain kernels damaged by insects injurious to rye; or

(*g*) contains live insects injurious to rye;

shall be undergrade rye; provided that rye having live insects injurious to rye present therein and received by a purchaser on or after the first day of May in any year shall not be undergrade rye if that rye was threshed before the said first day of May in that year or at any time during a previous year.

METHODS OF TESTING.

2. (1) *Taking of Samples*—

(*a*) *of rye in bags*—samples for the purpose of testing rye in bags shall be obtained by the taking of small quantities of rye from each bag by means of a grain probe, different levels in the bag being probed. Probing must in all cases be done towards the centre of the bag. If the rye from all the bags in a lot are found to be generally of the same quality, the samples from all the bags are thrown together into a pan. The grade is then determined from the sample in the pan after the rye in the pan has been thoroughly mixed. Any bags containing rye differing in any respect from the rye in the other bags must be placed aside and graded separately;

(*b*) *of rye in bulk*—samples for the purpose of testing rye in bulk shall be obtained by taking small quantities from the bulk with a double-tube multiple-compartment probe of suitable length at different places scattered as widely as possible, the probe to be pushed in as deeply as possible.

(2) *Determination of Bushel Weight.*—The bushel weight shall be determined by one or other of the following two methods:—

(*a*) *Chondrometer Method.*—The standard apparatus in this method is a chrondrometer of standard dimensions, viz.:—

Hopper.—Height, 8·9 inches; top diameter of hopper, 3·6 inches; diameter of shutter hole, 1·25 inches.

Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial); drop of rye from shutter hole to top of bucket, 1·2 inches.

Wooden Scraper.—$\frac{1}{2}$-inch thick and 1·4 inches wide, and at least 4 inches long. At least one edge of the scraper must be well rounded, but not worn.

(2) Rog wat rog- of ander graankorrels bevat wat beskadig is deur insekte wat skadelik is vir rog, maar wat vry is van lewende insekte wat skadelik is vir rog, word een graad laer gegradeer as dié wat ooreenkomstig die tabel in subregulasie (1) uiteengesit, bepaal word; met dien verstande dat rog wat rog- of ander graankorrels bevat wat beskadig is deur insekte wat skadelik is vir rog en wat op of na die eerste dag van Mei in enige jaar deur 'n koper ontvang word, nie ooreenkomstig die bepalings van hierdie subregulasie een graad laer gegradeer word as daardie rog voor genoemde eerste dag van Mei in daardie jaar of te eniger tyd gedurende 'n vorige jaar gedors is nie.

(3) Rog wat nie aan die vereistes vir een of ander van die grade gespesifiseer in die tabel wat in subregulasie (1) uiteengesit is, voldoen nie, of wat—

(*a*) nie gebruik kan word vir die maal van gesonde meel of meelblom wat vir menslike gebruik geskik is nie; of

(*b*) met stinkbrand besmet is; of

(*c*) 'n muf, skimmel, suur of ander reuk het wat af te keur is; of

(*d*) met 'n chemiese stof behandel is en as gevolg daarvan in die handel af te keur is; of

(*e*) in die handel af te keur is omdat dit giftige onkruid of onkruidsaad of 'n chemiese stof of ander materiaal bevat wat moontlik vir die gesondheid van die mens nadelig kan wees; of

(*f*) aan die vereistes vir graad 3 voldoen, maar rog- of ander graankorrels bevat wat beskadig is deur insekte wat vir rog skadelik is; of

(*g*) lewende insekte bevat wat vir rog skadelik is;

is ondergraadrog; met dien verstande dat rog waarin lewende insekte wat vir rog skadelik is, aanwesig is, en wat op of na die eerste dag van Mei in enige jaar deur 'n koper ontvang word, nie ondergraadrog is nie as dit voor genoemde eerste dag van Mei in daardie jaar of te eniger tyd gedurende 'n vorige jaar gedors is.

TOETSMETODES.

2. (1) *Monsterneming*—

(*a*) *rog in sakke*—monsters vir die toets van rog in sakke word verkry deur klein hoeveelhede rog op verskillende hoogtes met 'n steker uit elke sak te neem. Die steker moet in alle gevalle diep in die sak ingesteek word. As daar gevind word dat die rog van al die sakke saam oor die algemeen van dieselfde kwaliteit is, word die monsters van al die sakke saam in 'n pan gegooi. Die graad word dan van die monsters in die pan bepaal nadat die rog in die pan deeglik gemeng is. Sakke waarvan die rog in enige opsig van die rog in die ander sakke verskil, word opsy gesit en afsonderlik gegradeer;

(*b*) *rog in massa*—monsters vir die toets van rog in massa word verkry deur klein hoeveelhede met 'n dubbelbuissteker met veelvoudige afskortings en van geskikte lengte op verskillende plekke, so verspreid moontlik, uit die massa te neem; die steker moet so diep as moontlik ingesteek word

(2) *Bepaling van skepelgewig.*—Die skepelgewig word bepaal volgens een van onderstaande twee metodes:—

(*a*) *Chondrometer-metode.*—Die standaardapparaat by hierdie metode is 'n chondrometer (skepelgewigskaaltjie) van standaardafmetings, naamlik:—

Tregter.—Hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud, 34·675 kubieke duim, d.w.s. een pint (imperiaal); val van rog van klepgat na top van emmer, 1·2 duim.

Houtskraper.—$\frac{1}{2}$ duim dik, 1·4 duim breed, en minstens 4 duim lank. Minstens een van die rande van die skraper moet goed gerond wees, maar nie afgeslyt nie.

Method of Using Apparatus.—The entire apparatus must be placed on a hard, smooth, level surface not subjected to jarring or shaking. The hopper is filled with rye and scraped off level full. The bucket is then placed directly below the centre of the shutter of the hopper, so that it rests firmly on its base. Thereupon the hopper shutter is opened wide with a quick swing, the rye being allowed to fill the bucket and to overflow on all sides, after which the chondrometer box is moved back six inches without jarring or shaking the bucket and the hopper swung away. The surplus rye is then scraped from the bucket with the scraper, which is held vertically. If the scraper has both a round and a sharp edge, only the round edge may be used for scraping. In scraping the scraper is placed lightly but firmly on the rim of the bucket, which is grasped gently but firmly with one hand, and the surplus rye scraped off with one firm scrape straight across the rim of the bucket. The scraping should leave the bucket just level full of rye. The bucket and the rye are weighed on the counterpoise beam of the chrondrometer, care being taken to have the beam exactly horizontal before the weight is read.

The bushel weight must be determined twice on each sample. If the two readings do not agree, the test must be repeated.

(*b*) *The Two-level Bushel-funnel Method.*—The standard apparatus in this method is the following:—

A "four-in-one" Scale.

A Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

A Conical Hopper.—With a swing shutter at the narrow end, attached to a two-level metal base by means of an upright metal rod; the dimensions of the hopper are as follows: Vertical height, 8·9 inches; top diameter, 3·6 inches; diameter of shutter hole, 1·125 inches.

The conical hopper is attached to the upright rod by means of a metal arm fitting over and able to rotate round the upright at one end and fixed to the conical hopper at the other end. When the hopper is in position, its centre line must be vertical. The higher level, which should give a clearance of 1·2 inches between the bottom rim of the hopper and the rim of the bucket, is used for testing rye.

A Wooden Scraper.—½-inch thick and 1·4 inches wide and at least 4 inches long. At least one edge of the scraper must be well rounded, but not worn.

Method of Using Apparatus.—The entire apparatus is placed on a hard, smooth, level surface, not subject to jarring or shaking. The hopper is filled with rye and scraped off level full. The bucket is then placed on the base of the stand so that its centre is directly below that of the hopper shutter. The bucket must rest firmly on this base. Thereupon the hopper shutter is opened wide with a quick swing, the rye being allowed to fill the bucket and to overflow on all sides. The hopper is then swung round, away from the bucket, without disturbing the bucket in any way. The surplus rye is then scraped from the bucket with the scraper which is held vertically. If the scraper has both a round and sharp edge, only the round edge may be used for scraping. In scraping, the scraper is placed lightly but firmly on the rim of the bucket which is grasped gently but firmly with one hand, and the surplus rye scraped off with one firm scrape straight across the rim of the bucket. The scraping should leave the bucket just level full of rye. The four-in-one scale is placed on a firm base and balanced, the

Metode van bepaling.—Die hele apparaat word op 'n harde, gladde, waterpas oppervlakte geplaas wat nie geruk of geskud word nie. Die tregter word gevul met rog en bo afgeskraap sodat dit gelykvol is. Daarna word die emmer reg onder die middel van die tregterklep geplaas sodat die emmer vas op sy bodem staan. Dan word die tregterklep wyd oopgestoot met 'n vinnige swaai sodat die rog die emmer vol maak en aan alle kante oorloop, waarna die kas van die chondrometer ses duim agteruit gestoot en die tregter opsy geswaai word sonder dat die emmer gestamp of geskud word. Die oortollige rog word dan van die emmer afgeskraap met die skraper wat vertikaal op sy rand gehou word. As 'n skraper 'n ronde sowel as 'n skerp rand het, mag slegs die ronde rand gebruik word om mee te skraap. By die afskraap word die skraper lig maar vas op die rand van die emmer geplaas, wat versigtig maar stewig met een hand vasgehou word en die oortollige rog word met een vaste beweging regoor die rand van die emmer heen afgeskraap sodat die emmer dan net gelykvol rog bly. Daarna word die emmer en die rog geweeg op die chondrometer se teenwigarm wat presies waterpas moet staan wanneer die gewig afgelees word.

Die skepelgewig moet twee keer met iedere monster bepaal word, en as die twee lesings nie ooreenstem nie moet die toets herhaal word.

(*b*) *Die tweevlakskepeltregtermetode.*—Die standaardapparaat by hierdie metode is as volg:—

'n Vier-in-een-skaal.

'n Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud 34·675 kubieke duim, d.w.s. een pint (imperiaal).

'n Keëlvormige tregter met 'n swaai klep aan die nou end, wat deur middel van 'n regop metaalstaaf aan 'n tweevlakmetaalvoetstuk geheg is; die afmetings van die tregter is as volg: Vertikale hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Die keëlvormige tregter is aan die regop staaf geheg deur middel van 'n metaalarm wat aan die een end oor die regop staaf pas en daarom heen geswaai kan word en aan die ander end aan die tregter geheg is. Wanneer die tregter in posisie is, moet sy middellyn loodreg wees. Die hoogste vlak, wat 'n afstand van 1·2 duim moet laat tussen die onderste rand van die tregter en die rand van die emmer, word vir die toets van rog gebruik.

'n Houtskraper —½ duim dik, 1·4 duim breed, en minstens 4 duim lank. Minstens een van die rande van die skraper moet goed gerond wees, maar nie afgeslyt nie.

Metode van bepaling.—Die hele apparaat word op 'n harde effe gelyk oppervlakte geplaas wat nie gestamp of geskud kan word nie. Die tregter word met die monster gevul en afgeskraap sodat hy net gelykvol is. Die emmer word nou op die voetstuk van die staander geplaas sodat sy bodem se middelpunt reg onder dié van die tregterklep is. Die emmer moet vas op die voetstuk staan. Die tregterklep word met 'n vinnige swaai oopgestoot sodat die rog die emmer volmaak en aan alle kante oorloop. Die tregter word omgeswaai, weg van die emmer af, sonder dat die emmer gestamp of gestoot word. Die oortollige rog word dan van die emmer afgeskraap met die skraper wat vertikaal op sy rand gehou word. As die skraper 'n ronde sowel as 'n skerp rand het, mag slegs die ronde rand gebruik word om mee te skraap. By die afskraap word die skraper lig maar vas op die rand van die emmer geplaas en die oortollige rog met een vaste beweging regoor die rand van die emmer heen afgeskraap sodat die emmer dan net gelykvol rog bly. Die emmer word versigting maar goed met die een hand vasgehou. Die vier-in-een-skaal word dan op 'n gelyke, vaste oppervlakte geplaas en in ewewig

rye in the bucket poured into the pan of the "four-in-one" scale and weighed to determine the weight per bushel.

The bushel weight must be determined twice on each sample, and if the readings do not agree the test must be repeated.

(3) *Determination of Percentage of Wheat.*—The percentage of wheat in rye is determined by hand-picking duplicate 25-gramme samples. The weight of the wheat kernels so obtained, expressed as a percentage of the total weight of the sample, represents the wheat content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(4) *Determination of Percentage of Vetch.*—The percentage of vetch in rye is determined by hand-picking duplicate 100-gramme samples. The weight of the vetch so obtained, expressed as a percentage of the total weight of the sample, represents the vetch content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(5) *Determination of Perecentage of Barley, Oats and Unthreshed Ears.*—The percentage of barley, oats and unthreshed ears in the rye is determined by hand-picking duplicate 50-gramme samples. The weight of the barley, oats and unthreshed ears so obtained, expressed as a percentage of the total weight of the samples, represents the barley, oats and unthreshed ear content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(6) *Determination of Percentage of Foreign Matter.*—The percentage of foreign matter in rye is determined by hand-picking duplicate 100-gramme samples. The weight of the foreign matter so determined, expressed as a percentage of the total weight of the sample, represents the foreign matter content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(7) *Determination of Percentage of Broken Rye.*—The percentage of broken rye is determined by hand-picking duplicate 25-gramme samples. The weight of the broken rye so obtained, expressed as a percentage of the total weight of the sample, represents the broken rye content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(8) *Determination of Percentage of Damaged Rye.*—The percentage of damaged rye is determined by hand-picking duplicate 25-gramme samples. The weight of the damaged kernels so obtained, expressed as a percentage of the total weight of the sample, represents the damaged rye content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(9) *Determination of Moisture Content.*—The moisture content of the rye shall be determined by the Standard Brown-Duvel moisture test for rye as described below.

gebring. Die rog wat in die emmer is, word in die pan van die vier-in-een-skaal geplaas en geweeg ten einde die skepelgewig van die rog te bepaal.

Die skepelgewig moet twee keer met iedere monster rog bepaal word, en as die twee lesings nie ooreenstem nie, moet die toets herhaal word.

(3) *Bepaling van persentasie koring.*—Die persentasie koring in rog word bepaal deur die koring met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die koring aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid koring in die monster. As die verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(4) *Bepaling van persentasie wilde-ertjies.*—Die persentasie wilde-ertjies in rog word bepaal deur die wilde-ertjies met die hand uit te soek uit duplikaatmonsters van 100 gram elk. Die gewig van die wilde-ertjies aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid wilde-ertjies in die monster. As die verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(5) *Bepaling van persentasie gars, hawer en ongedorste are.*—Die persentasie gars, hawer en ongedorste are in die rog word bepaal deur die gars, hawer en ongedorste are met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die gars, hawer en ongedorste are aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid gars, hawer en ongedorste are in die monster. As die verskil tussen die persentasie ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(6) *Bepaling van persentasie vreemde materiaal.*—Die persentasie vreemde materiaal in rog word bepaal deur die vreemde materiaal met die hand uit te soek uit duplikaatmonsters van 100 gram elk. Die gewig van die vreemde materiaal aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid vreemde materiaal in die monster. As die verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(7) *Bepaling van persentasie gebreekte rog.*—Die persentasie gebreekte rog word bepaal deur die gebreekte rog met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die gebreekte rog aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid gebreekte rog in die monster. As die verskil tussen die twee persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(8) *Bepaling van persentasie beskadigde rog.*—Die persentasie beskadigde korrels in rog word bepaal deur die beskadigde korrels in duplikaatmonsters van 25 gram elk met die hand uit te soek. Die gewig van die beskadigde korrels aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie beskadigde rog in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word

(9) *Bepaling van voggehalte.*—Die voggehalte van rog word bepaal deur die Brown-Duvel-standaardtoets vir voggehalte van rog (soos hieronder beskryf).

METHOD OF TESTING.

The Standard Brown-Duvel moisture testing apparatus is assembled in a place away from draughts. One hundred grammes of rye are introduced into the flask, and 150 c.c. of moisture-testing oil added. The rye and oil must be well mixed by shaking. The opening of the flask is closed by means of a rubber stopper through which passes a standard thermometer, so adjusted that four-fifths of the murcury bulb is submerged in the rye and oil. Only correctly graduated centigrade thermometers specially made for this apparatus may be used. The flask is then placed in the Brown-Duvel apparatus, and the arm of the flask is connected to the condenser tube so that it fits properly. The wire gauze with asbestos centre below the flask must be in good condition and so adjusted that when the flask is heated, the flame plays directly in the centre of the asbestos. The stand upon which the flask rests should be of such a height that the bottom of the flask is about $\frac{3}{8}$ inch above the asbestos. A correctly graduated measuring cylinder is placed under the condenser tube to collect the water driven off. A continuous stream of cold water should pass through the condenser tank, or, if a small single compartment Brown-Duvel outfit with no provision for a stream of water is used, the tank should be filled with cold water before each test.

The cover is then placed over the flask compartment and heating started. The heating may be brought about by electrical elements, coal-gas blowlamps or alcohol burners (spirit lamps) as supplied for the apparatus. In all cases, however, the heat must be so regulated that the temperature of 185° C. is reached in not less than 19 minutes and not more than 21 minutes. A longer heating time gives results too low and a shorter time results too high. The heat must be cut off immediately the temperature reaches 185° C. (Normally it takes 10 minutes for the temperature to rise to about 100-110° C. and a further 10 minutes to rise to 185° C.)

If the moisture content of the sample is very high, foaming and bubbling over may result with the normal method of heating. Under such conditions the best way of obtaining the true moisture content is to heat rapidly until the oil bubbles, and then to apply little heat until a few cubic centimetres of water have been driven off. The heat may then be turned on to normal again and the remaining moisture driven off without foaming within the prescribed period of heating.

After the heat has been cut off, a slight gradual rise in temperature is to be expected. A sudden increase or a sudden decrease in temperature of several degrees indicates that the flame was too intense during the latter part of heating and the test must be repeated. If the water which distills over is discoloured, the rye has evidently been burned and the test must be repeated. Neither the cover nor the thermometer must be removed until the temperature has dropped to 160° C. After the temperature has dropped to 160° C. or lower the cover and the thermometer are removed and the delivery tube is disconnected. All drops clinging to the sides of the measuring cylinder are shaken down and the percentage of moisture read off. The reading is taken beneath the layer of oil floating on the water. Results must be read to one-tenth of one per cent. All tests must be made in duplicate and if the difference between the two readings does ot exceed 0·2 the average of the two readings shall be taken as the moisture content; if the said difference exceeds 0·2. the test must be repeated.

When this apparatus is used, care must be taken to avoid the use of mushy rubber stoppers, to clean and dry the measuring flasks before using for a test, not to use oil directly from a previous test and to see that the column of mercury in the thermometer is unbroken before any test is commenced with.

Either fresh oil or oil which has not been used for some time should be used for every test, and the oil should in any case be heated to a temperature of about 200° C. and allowed to cool before use.

TOETSMETODE.

Die apparaat word opgerig op 'n plek waar daar geen trek is nie. Honderd gram rog word in die fles gegooi en 150 kubieke sentimeter vogtoetsolie bygevoeg. Die rog en olie word deeglik gemeng deur die fles te skud. Die opening van die fles word gesluit met 'n gomlastiekprop waardeur 'n standaardtermometer gaan wat so gestel is dat vier-vyfdes van die kwiksilwerbol in die olie en rog versink is. Slegs korrek gegradeerde Celsius-termometers, spesiaal vir die apparaat gemaak, mag gebruik word. Die fles word dan in die Brown-Duvel-apparaat geplaas, en die arm van die fles met die kondenseerhuis verbind sodat dit goed pas. Die gaasdraad met asbesmiddelstuk onder die fles moet in 'n goeie toestand wees en so gestel word dat die vlam direk onder die middel van die asbes is terwyl die fles verhit word. Die staander waarop die fles rus, moet so hoog wees dat die bodem van die fles omtrent $\frac{3}{8}$ duim bo die asbes is. 'n Korrek gegradeerde maatglas word onder die kondenseerbuis geplaas om die water wat afgedryf word, op te vang. 'n Stroom koue water moet onafgebroke deur die kondenseertenk loop of, as 'n klein enkelvak-Brown-Duvel-apparaat sonder voorsiening vir 'n stroom water gebruik word, moet die tenk na elke toets met koue water gevul word.

Die deksel word dan oor die fleshouer geplaas en die verhitting begin. Verhitting kan geskied deur middel van elektrisiteit, koolgasblaaslampe of alkohollampe (spiritus-lampe) soos vir die apparaat verskaf word. In alle gevalle moet die hitte egter so gereël word dat die temperatuur van 185° C. in minstens 19 minute maar hoogstens 21 minute bereik word. As dit langer duur, sal die resultate te laag wees, en as dit korter duur, sal die resultate te hoog wees. Die verhitting moet dadelik stopgesit word sodra die temperatuur 185° C. bereik. (Gewoonlik duur dit 10 minute voordat die temperatuur styg tot omtrent 100° C.-110° C. en nog 10 minute voordat 185° C. bereik word.)

As die voggehalte van die monster besonder hoog is, kan skuim gevorm word en die inhoud oorkook as die normale metode van verhitting toegepas word. Onder sulke omstandighede kan die regte voggehalte die beste bepaal word deur die mengsel vinnig te verhit totdat opborreling van olie plaasvind, en dan min hitte te gee totdat 'n paar kubieke sentimeters water afgedryf is. Die normale verhitting kan dan weer toegepas en die orige vog sonder skuimvorming binne die voorgeskrewe tydperk deur verdamping verwyder word.

Nadat die verhitting ophou, kan 'n geringe geleidelike styging in temperatuur verwag word. 'n Skielike styging of daling van verskeie grade in die temperatuur toon aan dat die vlam te warm was gedurende die laaste deel van die verhitting, en dan moet die toets herhaal word. As die water wat oorstook, verkleur is, dui dit aan dat die rog gebrand het en dan moet die toets herhaal word.

Die deksel en termometer moet nie verwyder word voordat die temperatuur tot 160° C. gedaal het nie. Daar moet gewag word totdat die temperatuur tot 160° C. of laer gedaal het, voordat die deksel verwyder en die termometer en die afleweringsbuisie losgemaak word.

Alle druppels water wat aan die kante van die maatglas hang, word neergeskud en die persentasie vog afgelees. Die lesing word geneem onder die laag olie wat bo-op die water dryf. Resultate moet afgelees word tot een-tiende van een persent. Alle toetse moet twee keer gedoen word en as die verskil tussen die twee lesings nie groter as 0·2 is nie, word die gemiddelde van die twee lesings as voggehalte geneem; as genoemde verskil groter as 0·2 is, moet die toets herhaal word.

By die gebruik van hierdie apparaat moet gesorg word dat geen voos gomlastiekproppe gebruik word nie, en die maatglas skoon en droog gemaak word voordat dit gebruik word, dat geen olie onmiddellik na 'n vorige toets weer gebruik word nie, en dat die kwiksilwerkolom ongebroke is voordat met 'n toets begin word.

Vir iedere toets moet òf vars olie òf olie wat vir 'n tydlank nie gebruik is nie, gebruik word; in elk geval moet die olie tot 'n temperatuur van ongeveer 200° C. verhit word en eers afkoel voordat dit gebruik word.

DEFINITIONS.

3. For the purpose of this Schedule—

"rye" shall mean the caryopsis of the species *Secale cereale*;

"bushel weight" shall mean weight per imperial bushel;

"wheat" shall mean the caryopsis of the species *Triticum vulgare, Triticum compactum, Triticum durum, Triticum turgidum* and *Triticum polonicum*;

"vetch" shall mean the seed of the weed known as "wild vetch" or "wilde-ertjies" (*Vicia* spp.);

"barley" shall mean the kernels of the genus *Hordeum*;

"oats" shall mean the kernels of the genus *Avena*;

"other grain" shall mean the kernels or pieces of kernels of barley, oats and wheat;

"foreign matter" shall mean all material other than rye, wheat, vetch, barley, oats and unthreshed ears present in any sample of rye, and shall include weed seeds of any kind and any other material such as chaff, bits of binder twine, stones and sticks;

"unthreshed ears" shall mean ears or bits of ears of rye, barley, oats and wheat which still contain caryopses or kernels, as the case may be;

"impurities" shall mean vetch, barley, oats, unthreshed ears and foreign matter;

"broken rye" shall mean broken rye kernels and broken wheat kernels;

"insects injurious to rye" shall mean the grain weevil (*Sitophilus granarius*), the rice weevil (*Sitophilus oryzae*), the Australian wheat weevil (*Rhizopertha dominica* Fab.) and the Angoumois grain moth (*Sitotroga cerealla*);

"damaged rye" shall mean—

(*a*) rye, wheat, barley and oat kernels which have been damaged by insects injurious to rye; or

(*b*) sprouted rye kernels and sprouted wheat kernels in which germination or sprouting has proceeded so far that the skin covering the embryo has been broken and the developing rootlets or plumule of the embryo can be clearly seen; or

(*c*) mould-infected rye kernels and mould-infected wheat kernels which can be seen to be infected with mould organisms or other fungi, excluding stinking smut;

"smutty rye" shall mean rye which has an unmistakable odour of stinking smut, or contains wheat or rye caryopses smeared with stinking smut, or contains more than 4 smut balls (or portions of balls equivalent to more than 4 smut balls) per 100 grammes of rye;

"moisture-testing oil" shall mean—

(*a*) "Pan" salad and cooking oil manufactured by Epic Oil Mills (Pty.), Limited;

(*b*) "Epic" salad and cooking oil manufactured by Epic Oil Mills (Pty.), Limited; or

(*c*) "Consol" oil manufactured by Epic Oil Mills (Pty.), Limited.

✱ No. 2108.] [15 October 1954.

WINTER CEREAL SCHEME.

GRADING OF OATS.

His Excellency the Governor-General has, under the powers vested in him by section *forty-three* of the Marketing Act, 1937 (Act No. 26 of 1937), as amended, made the regulations set forth in the Schedule hereto relating to the grading of oats according to quality. The said regulations shall come into force on the first day of November, 1954, in substitution for the regulations published under Government Notice No. 2261 of the 21st October, 1949.

WOORDBEPALING.

3. Vir die toepassing van hierdie Bylae, beteken—

„rog", die caryopsis van die soort *Secale cereale;*

„skepelgewig", gewig per imperiale skepel;

„koring", die caryopsis van die soort *Triticum vulgare, Triticum compactum, Triticum durum, Triticum turgidum* en *Triticum polonicum;*

„wilde-ertjies", die saad van die onkruid bekend as wilde-ertjies of wieke (*Vicia* spp.);

„gars", die korrels van die geslag *Hordeum;*

„hawer", die korrels van die geslag *Avena;*

„ander graan", die korrels of stukkies korrels van gars, hawer en koring;

„vreemde materiaal", alle materiaal in 'n rogmonster behalwe rog, koring, wilde-ertjies, gars, hawer en ongedorste are maar met inbegrip van onkruidsaad van enige aard en enige ander materiaal soos kaf, stukke bindgaring, klippe en stokkies;

„ongedorste are", are en gedeeltes van are van rog, gars, hawer en koring wat nog caryopses of korrels, na gelang van die geval, bevat;

„onsuiwerhede", wilde-ertjies, gars, hawer, ongedorste are en vreemde materiaal;

„gebreekte rog", gebreekte rogkorrels en gebreekte koringkorrels;

„insekte wat skadelik is vir rog", die graankalander (*Sitophilus granarius*), die ryskalander (*Sitophilus oryzae*), die Australiese koringkalander (*Rhizopertha dominica* Fab.) en die Angoumois-graanmot (*Sitotroga cerealla*);

„beskadigde rog"—

(*a*) rog-, koring-, gars- en hawerkorrels wat beskadig is deur insekte wat vir rog skadelik is; of

(*b*) uitgeloopte rogkorrels en uitgeloopte koringkorrels waarin die ontkieming of spruiting sover gevorder is dat die vel wat die kiem bedek, gebreek is en die ontwikkelende worteltjies of spruite (plumula) duidelik sigbaar is; of

(*c*) skimmelbesmette rogkorrels en skimmelbesmette koringkorrels waarop skimmel- of ander swamorganismes, behalwe stinkbrand, duidelik sigbaar is;

„stinkbrandbesmette rog", rog wat 'n onmiskenbare stinkbrandreuk het, of wat koring- of rogcaryopses wat met stinkbrand besmeer is, bevat of wat meer as vier stinkbrandkorrels (of stukkies korrels gelyk aan meer as vier stinkbrandkorrels) per 100 gram rog bevat;

„vogtoetsolie"—

(*a*) „Pan"-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Limited;

(*b*) „Epic"-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Limited; of

(*c*) „Consol"-olie, vervaardig deur die Epic Oil Mills (Pty.), Limited.

✱ No. 2108.] [15 Oktober 1954.

WINTERGRAANSKEMA.

GRADERING VAN HAWER.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemarkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies uiteengesit in die Bylae hiervan gemaak met betrekking tot die gradering van hawer volgens kwaliteit. Genoemde regulasies tree op die eerste dag van November 1954 in werking ter vervanging van die regulasies afgekondig by Goewermentskennisgewing No. 2261 van 21 Oktober 1949.

SCHEDULE.

1. (1) All oats shall for grading purposes be divided into two classes, viz.—

(*a*) Class A oats, which shall mean oats consisting of at least 90 per cent, by weight, of one or more of the varieties "Langgewens", "Algerian", "Smyrna", "Red Rust-proof", "Sidonia" "River Plate", "Texas", "Appler", "Bancroft" and "Jongensklip", and which shall, subject to the provisions of sub-regulations (2) and (3), be graded in accordance with the requirements specified for the respective grades in the following table:—

BYLAE.

1. (1) Alle hawer word vir graderingsdoeleindes in twee klasse ingedeel, nl.—

(*a*) Klas A-hawer, wat beteken hawer bestaande uit minstens 90 persent, volgens gewig, van een of meer van die variëteite „Langewens", „Algierse", „Smyrna", „Red Rust-proof", „Sidonian", „River Plate", „Texas", „Appler", „Bancroft" en „Jongensklip", en wat behoudens die bepalings van subregulasies (2) en (3), ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer word:—

Grade.	Minimum Bushel Weight.	Maximum Percentage by Weight of Black, Grey or Chocolate-coloured Oats.	Maximum Percentage by Weight of Dehulled Oats.	Foreign Matter.		Maximum Percentage by Weight of Sand, Gravel and Stones.	Maximum Percentage of Moisture.	Maximum Percentage by Weight of Damaged Grain.	Maximum Percentage by Weight of Other Grain, *plus* Foreign Matter, *plus* Damaged Grain.
				Maximum Percentage by Weight of Other Grain and Unthreshed Ears.	Maximum Percentage by Weight of Foreign Matter, including Sand, Gravel and Stones.				
	lb.								
1.....	37	5	6	2	2	0·5	13	2	4
2.....	35	5	10	3	3	0·5	13	3	6

Graad.	Minimum skepelgewig.	Maksimum persentasie swart, grys of sjokoladekleurige hawer, volgens gewig.	Maksimum persentasie uitgedopte hawer, volgens gewig.	Vreemde materiaal.		Maksimum persentasie sand, gruis en klippies, volgens gewig.	Maksimum persentasie vog.	Maksimum persentasie beskadigde graan, volgens gewig.	Maksimum persentasie ander graan, *plus* ongedorste are, *plus* vreemde materiaal, *plus* beskadigde graan, volgens gewig.
				Maksimum persentasie ander graan, en ongedorste are, volgens gewig.	Maksimum persentasie vreemde materiaal volgens gewig, met inbegrip van sand, gruis en klippies.				
	lb.								
1.....	37	5	6	2	2	0·5	13	2	4
2.....	35	5	10	3	3	0·5	13	3	6

(*b*) Class B oats, which shall mean oats consisting of one or more of the varieties of oats not falling under class A oats, or of mixtures of varieties falling under that class but containing less than 90 per cent by weight of those varieties or of a standard below that prescribed for grade 2 in the table in paragraph (*a*) and which shall, subject to the provisions of sub-clauses (2) and (3), be graded in accordance with the requirements specified for the respective grades in the following table:—

(*b*) Klas B-hawer, wat beteken hawer bestaande uit een of meer van die hawervariëteite wat nie in klas A-hawer val nie, of van mengsels van variëteite wat in daardie klas val, maar wat minder as 90 persent, volgens gewig, van daardie variëteite bevat, of van 'n laer standaard as dié wat vir graad 2 in die tabel in paragraaf (*a*) voorgeskryf word, en wat, behoudens die bepalings van subregulasies (2) en (3), ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer word:—

Grade.	Minimum Bushel Weight.	Maximum Percentage by Weight of Black, Grey or Chocolate-coloured Oats.	Maximum Percentage by Weight of Dehulled Oats.	Foreign Matter.		Maximum Percentage by Weight of Sand, Gravel and Stones.	Maximum Percentage of Moisture.	Maximum Percentage by Weight of Damaged Grain.	Maximum Percentage by Weight of Foreign Matter, *plus* Damaged Grain.
				Maximum Percentage by Weight of Other Grain and Unthreshed Ears.	Maximum Percentage by Weight of Foreign Matter, including Sand, Gravel and Stones.				
	lb.								
1.....	37	8	15	5	4	0·5	13	5	7
2.....	35	10	20	8	6	0·5	13	10	10
3.....	32	—	—	20	10	0·5	13	15	18
4.....	28	—	—	35	10	0·5	13	20	25
Undergrade.	Less than 28 lb.	—	—	More than 35%	More than 10%	More than 0·5%	More than 13%	More than 20%	More than 25%

Graad.	Minimum skepelgewig.	Maksimum persentasie swart, grys of sjokoladekleurige hawer, volgens gewig.	Maksimum persentasie uitgedopte hawer, volgens gewig.	Vreemde Materiaal.		Maksimum persentasie sand, gruis en klippies, volgens gewig.	Maksimum persentasie vog.	Maksimum persentasie beskadigde graan, volgens gewig.	Maksimum persentasie vreemde materiaal, *plus* beskadigde graan, volgens gewig.
				Maksimum persentasie ander graan en ongedorste are, volgens gewig.	Maksimum persentasie vreemde materiaal volgens gewig, met inbegrip van sand, gruis en klippies.				
	lb.								
1.....	37	8	15	5	5	0·5	13	5	7
2.....	35	10	20	8	6	0·5	13	10	10
3.....	32	—	—	20	10	0·5	13	15	18
4.....	28	—	—	35	10	0·5	13	20	25
Ondergraad.	Minder as 28 lb.	—	—	Meer as 35%	Meer as 10%	Meer as 0·5%	Meer as 13%	Meer as 20%	Meer as 25%

(2) Any oats which contain oat or other grain kernels damaged by insects injurious to oats, but are free from live insects injurious to oats, shall be graded one grade lower than that determined in accordance with the tables set out in paragraphs (*a*) and (*b*) of sub-regulation (1), as the case may be; provided that oats containing oat or other grain kernels damaged by insects injurious to oats and received by a purchaser on or after the first day of May in any year, shall not be degraded in accordance with the terms of this sub-regulation if those oats were threshed before the said first day of May in that year or at any time during a previous year.

(3) Any oats which do not conform to the requirements for one or other of the grades set out in the table in paragraph (*b*) of sub-regulation (1), or which—

(*a*) are not fit for human or animal consumption; or

(*b*) are smutty; or

(*c*) have a musty or any other objectionable odour; or

(*d*) have been treated with any chemical which renders the oats unfit for human or animal consumption; or

(*e*) are commercially objectionable because they contain any poisonous weeds or weed seeds or any chemical or other substance likely to be deleterious to the health of human beings or animals; or

(*f*) comply with the requirements for grade 4 of class B oats, but contain oat or other grain kernels damaged by insects injurious to oats; or

(*g*) contain live insects injurious to oats;

shall be under grade oats; provided that oats having live insects injurious to oats present therein and received by a purchaser on or after the first day of May in any year shall not be undergrade oats if those oats were threshed before the said first day of May in that year or at any time during a previous year.

Methods of Testing.

2. (1) *Taking of Samples*—

(*a*) *of oats in bags*—samples for the purpose of testing oats in bags shall be obtained by the taking of small quantities of oats from each bag by means of a grain probe, different levels in the bag being probed. Probing must in all cases be done towards the centre of the bag. If the oats from all the bags in a lot are found to be generally of the same class and quality, the samples from all the bags are thrown together into a pan. The class and grade are then determined from the sample in the pan after the oats in the pan have been thoroughly mixed. Any bags containing oats differing in any respect from the oats in the other bags must be placed aside and graded separately;

(2) Hawer wat hawer- of ander graankorrels bevat wat beskadig is deur insekte wat vir hawer skadelik is, maar wat vry is van lewende insekte wat vir hawer skadelik is, word een graad laer gegradeer as dié wat ooreenkomstig die tabelle in paragrawe (*a*) en (*b*) van subregulasie (1) uiteengesit, na gelang van die geval, bepaal is; met dien verstande dat wat hawer- of ander graankorrels bevat wat beskadig is deur insekte wat skadelik is vir hawer en wat op of na die eerste dag van Mei in enige jaar deur 'n koper ontvang word, nie ooreenkomstig die bepalings van hierdie subregulasie een graad laer gegradeer word as daardie hawer voor genoemde eerste dag van Mei in daardie jaar of te enige tyd gedurende 'n vorige jaar gedors is nie.

(3) Hawer wat nie aan die vereistes vir een of ander van die grade in die tabel in paragraaf (*b*) van subregulasie (1) uiteengesit, voldoen nie, of wat—

(*a*) nie vir verbruik deur mens of dier geskik is nie; of

(*b*) met brand besmet is; of

(*c*) 'n muf of ander reuk wat af te keur is, het; of

(*d*) met 'n chemiese stof behandel is en as gevolg daarvan nie vir verbruik deur mens of dier geskik is nie; of

(*e*) in die handel af te keur is omdat dit giftige onkruid of onkruidsaad of 'n chemiese stof of ander materiaal bevat wat moontlik vir die gesondheid van mens of dier nadelig kan wees; of

(*f*) aan die vereistes vir garad 4 van klas B-hawer voldoen, maar hawer- of ander graankorrels bevat wat beskadig is deur insekte wat vir hawer skadelik is; of

(*g*) lewende insekte bevat wat vir hawer skadelik is;

is ondergraadhawer; met dien verstande dat hawer waarin lewende insekte wat vir hawer skadelik is, aanwesig is, en wat op of na die eerste dag van Mei in enige jaar deur 'n koper ontvang word, nie ondergraadhawer is nie as dit voor genoemde eerste dag van Mei in daardie jaar of te eniger tyd gedurende 'n vorige jaar gedors is.

Toetsmetodes.

2. (1) *Monsterneming*—

(*a*) *hawer in sakke*—monsters vir die toets van hawer in sakke word verkry deur klein hoeveelhede hawer op verskillende hoogtes met 'n steker uit elke sak te neem. Die steker moet in alle gevalle diep in die sak ingesteek word. As daar gevind word dat die hawer van al die sakke saam oor die algemeen van dieselfde klas en kwaliteit is, word die monsters van al die sakke saam in 'n pan gegooi. Die klas en graad word dan van die monster in die pan bepaal nadat die hawer in die pan deeglik gemeng is. Sakke waarvan die hawer in enige opsig van die hawer in die ander sakke verskil, word opsy gesit en afsonderlik gegradeer;

(*b*) *of oats in bulk*—samples for the purpose of testing oats in bulk shall be obtained by taking small quantities from the bulk with a double-tube multiple-compartment probe of suitable length at different places scattered as widely as possible, the probe to be pushed in as deeply as possible.

(2) *Classification.*—When it is necessary to determine the percentages of varieties or species of oats for the determination of the class thereof, duplicate 25-gramme samples must be hand-picked for the separation of the various varieties or species. The percentage of admixture is determined by weight. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages thus determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

If the oats contain foreign matter, dehulled oats or other grain, 100 grammes of the oats shall first be taken and all foreign matter, dehulled oats, and other grain removed by hand-picking. Duplicate 25-gramme samples are then taken of the oats from which the foreign matter, dehulled oats, and other grain have been so removed, and the class determined in the manner described in this subregulation.

(3) *Determination of Bushel Weight.*—The bushel weight shall be determined by one or other of the following two methods:—

(*a*) *Chondrometer Method.*—The standard apparatus in this method is a chondrometer of standard dimensions, viz.—

Hopper.—Vertical height, 8·9 inches; top diameter of hopper, 3·6 inches; diameter of shutter hole, 1·125 inches.

Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

Scraper.—A cylindical hardwood scraper; height, 4·9 inches; diameter, 2·875 inches.

Base.—A flat, level piece of wood ¾ inch thick and of a size not smaller than the base of the standard chondrometer box.

Bag.—A bag of strong linen cloth, 12 inches wide and 17 inches long, having a tape attached 1 inch below the open end for closing the bag.

Method of Using Apparatus.—Four hundred grammes of the well-mixed sample in the pan are weighed off and placed in the bag which is then closed. The material in the bag is then briskly rubbed by hand on a hard board surface such as a table or bench. Rubbing is done by holding the closed end of the bag in one hand, grasping a handful of the contents through the bag with the other hand at a time and rubbing this against the rest of the bag's contents. After each 5 or 6 rubs the contents are mixed by shaking the bag. Rubbing must be done for 1 minute.

The wooden base is now placed on a hard, smooth level surface not subject to jarring or shaking, and the chondrometer, mounted on its box, is placed on the base. The drop of oats from shutter hole to top of bucket must be 1·95 inches. The hopper is filled with the rubbed sample from the bag and scraped off level full. The bucket is then placed directly beneath the centre of the shutter of the hopper, so that it rests firmly on the level surface used. Thereupon the hopper shutter is opened wide with a quick swing, the oats being allowed to fill the bucket and to overflow on all sides, after which the chondrometer box and the base are moved back 6 inches without jarring or shaking the bucket and the hopper swung away. The surplus oats are then scraped off with the craper, the bucket being left just level full. The scraper must be placed gently but firmly

(*b*) *hawer in massa*—monsters vir die toets van hawer in massa word verkry deur klein hoeveelhede met 'n dubbelbuissteker met veelvoudige afskortings en van geskikte lengte op verskillende plekke, so verspreid moontlik, uit die massa te neem; die steker moet so diep as moontlik ingesteek word.

(2) *Klassifisering.*—Wanneer dit nodig is om die persentasies van hawervariëteite of -soorte vir die bepaling van die klas van die hawer vas te stel, moet duplikaatmonsters van 25 gram elk met die hand uitgesoek word vir die skeiding van die verskillende variëteite of soorte. Die persentasies in die mengsel word volgens gewig bepaal. As die verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word. As die hawer vreemde materiaal, uitgedopte hawer of ander graan bevat, word eers 100 gram van die hawer geneem en alle vreemde materiaal, uitgedopte hawer en ander graan met die hand verwyder. Duplikaatmonsters van 25 gram elk van die hawer waaruit die vreemde materiaal, uitgedopte hawer en ander graan aldus verwyder is, word dan geneem en die klas bepaal volgens die wyse in hierdie subregulasie beskryf.

(3) *Bepaling van skepelgewig.*—Die skepelgewig word bepaal volgens een van onderstaande twee metodes:—

(*a*) *Chondrometermetode.*—Die standaardapparaat by hierdie metode is 'n chondrometer van standaardafmetings, naamlik:—

Tregter.—Vertikale hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepga, 1·125 duim.

Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud, 34·675 kubieke duim, d.w.s. een pint (imperiaal).

Skraper.—'n Silindervormige hardehoutskraper, hoogte, 4·9 duim; deursnee, 2·875 duim.

Voetstuk.—'n Plat, gelyk stuk hout, ¾ duim dik en minstens so groot as die bodem van die standaardchondrometerkas.

Sak.—'n Sak van sterk linnedoek, 12 duim wyd en 17 duim lank, met 'n band 1 duim onderkant die bek om die sak toe te bind.

Metode van bepaling.—400 gram van die goed gemengde monster in die pan word geweeg en in die sak gegooi, en die sak toegebind. Die materiaal in die sak word dan deeglik met die hand gevryf op 'n harde oppervlakte soos die blad van 'n tafel of werksbank. Die monster word gevryf deur die bek van die sak in die een hand vas te hou, terwyl 'n handvol van die inhoud op 'n slag met sak en al teen die orige gedeelte van die monster in die sak gevryf word. Na elke vyf of ses keer se vryf word die inhoud weer gemeng deur die sak te skud. Die monster moet vir een minuut gevryf word.

Die voetstuk van hout word nou op 'n harde, effe oppervlakte geplaas wat nie gestamp of geskud kan word nie, en die chondrometer, wat op sy kas vasgeskroef is, word op die voetstuk geplaas. Die val van die hawer van die klepgat na die top van die emmer moet 1·95 duim wees. Die tregter word met die gevryfde monster uit die sak gevul en afgeskraap sodra dit gelykvol is. Die emmer word voor die chondrometer op die effe oppervlakte geplaas sodat die middelpunt van sy bodem reg onder dié van die tregterklep staan. Die emmer moet vas staan op die effe oppervlakte wat gebruik word. Dan word die tregterklep wyd oopgestoot met 'n vinnige swaai sodat dié hawer die emmer volmaak en aan alle kante oorloop, waarna die chondrometerkas en die voetstuk 6 duim agteruit geskuif word sonder dat die emmer geskud of gestamp word, en die tregter word weggeswaai. Die oortollige hawer word dan van die emmer afgeskraap met die skraper sodat die emmer net gelykvol is. By die afskraap word die skraper versigtig maar stewig op die rand van die emmer, wat

on the rim of the bucket, which is held firmly with one hand, and pushed straight across the rim; the scraper must not be allowed to roll. The bucket and the oats are then weighed on the counterpoise beam, care being taken to have the beam exactly horizontal before the weight is read.

The bushel weight must be determined twice on each sample. If the two readings do not agree the test must be repeated on a new rubbed sample.

(*b*) *The Two-level Bushel-funnel Method.*—The standard apparatus in this method is the following:—

A "four-in-one" scale.

A Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

A Conical Hopper.—With a swing shutter at the narrow end, attached to a two-level metal base by means of an upright metal rod; the dimensions of the hopper are as follows: vertical height, 8·9 inches; top diameter, 3·6 inches; diameter of shutter hole, 1·125 inches.

The conical hopper is attached to the upright rod by means of a metal arm fitting over and able to rotate round the upright at one end and fixed to the conical hopper at the other end. When the hopper is in position its centre line must be vertical. The lower level, which should give a clearance of 1·95 inches between the bottom rim of the hopper and the rim of the bucket, is used for testing oats.

Scraper.—A cylindrical hardwood scraper; height, 4·9 inches; diameter, 2·875 inches.

Bag.—A bag of strong linen cloth 12 inches wide and 17 inches long, having a tape attached 1 inch below the open end for closing the bag.

Method of Using Apparatus.—Four hundred grammes of the well-mixed sample in the pan are weighed, placed in the bag and rubbed as described in paragraph (*a*) of this sub-regulation.

The entire apparatus is placed on a hard, smooth, level surface, not subject to jarring or shaking. The hopper is filled with the rubbed sample from the bag and scraped off level full. The bucket is then placed on the base of the stand so that its centre is directly below that of the hopper shutter. The bucket must rest firmly on this base. Thereupon the hopper shutter is opened wide with a quick swing, the oats being allowed to fill the bucket and to overflow on all sides. The hopper is then swung round, away from the bucket, without disturbing the bucket in any way. The surplus oats are then scraped off with the scraper, the bucket being left just level full. The scraper must be placed gently but firmly on the rim of the bucket, which is held firmly with one hand, and the scraper pushed straight across the rim. The scraper must not be allowed to roll. The four-in-one scale is placed on a firm base and balanced, the oats in the bucket poured into the pan of the four-in-one scale and weighed to determine the weight per bushel.

The bushel weight must be determined twice on each sample. If the two readings do not agree, the test must be repeated on a new rubbed sample.

(4) *Determination of Percentage of Dehulled Oats.*—The percentage of dehulled oats is determined by hand-picking duplicate 25-gramme samples. The weight of the dehulled oats so obtained expressed as a percentage of the total weight of the sample, gives the dehulled oat-content of the sample. If the difference between the

stewig met die een hand vasgehou word, geplaas en dwarsoor die rand gestoot; die skraper mag nie rol nie. Die emmer met hawer word nou op die teenwigarm van die chondrometer geweeg. Hier moet gesorg word dat die teenwigarm presies waterpas staan voordat die gewig afgelees word.

Die skepelgewig moet tweekeer met elke monster bepaal word. As die twee lesings nie ooreenstem nie, moet die toets met 'n nuwe gevryfde monster herhaal word.

(*b*) *Die tweevlakskepeltregtermetode.*—Die standaard-apparaat by hierdie metode is as volg:—

'n Vier-in-een-skaal.

'n Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud 34·675 kubieke duim, d.w.s. een pint (imperiaal).

'n Keëlvormige tregter—met 'n swaaiklep aan die nou end, wat deur middel van 'n regop metaalstaaf aan 'n tweevlakmetaalvoetstuk geheg is; die afmetings van die tregter is as volg: Vertikale hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Die keëlvormige tregter is aan die regop staaf geheg deur middel van 'n metaalarm wat aan die een end oor die regop staaf pas en daarom heen geswaai kan word, en aan die ander end aan die tregter geheg is. Wanneer die tregter in posisie is, moet sy middellyn loodreg wees. Die laagste vlak, wat 'n afstand van 1·95 duim moet laat tussen die onderste rand van die tregter en die rand van die emmer, word vir die toets van hawer gebruik.

'n Skraper.—'n Silindervormige hardehoutskraper, 4·9 duim hoog, en met 'n deursnee van 2·875 duim.

'n Sak.—'n Sak van sterk linnedoek, 12 duim wyd, 17 duim lank, en met 'n band 1 duim onderkant die bek om die sak toe te bind.

Metode van bepaling.—400 gram van die goed gemengde monster in die pan word geweeg, in die sak gegooi en gevryf soos in paragraaf (*a*) van hierdie subregulasie beskryf. Die hele apparaat word op 'n harde effe oppervlakte geplaas wat nie gestamp of geskud kan word nie. Die tregter word met die gevryfde monster uit die sak gevul en afgeskraap sodat hy net gelykvol is. Die emmer word nou op die voetstuk van die staander geplaas sodat sy bodem en middelpunt reg onder dié van die tregterklep is. Die emmer moet vas op die voetstuk staan. Die tregterklep word met 'n vinnige swaai oopgestoot sodat die hawer die emmer volmaak en aan alle kante oorloop. Die tregter word omgeswaai, weg van die emmer af, sonder dat die emmer gestamp of gestoot word. Die oortollige hawer word dan van die emmer afgeskraap met die skraper, sodat die emmer net gelykvol is. By die afskraap word die skraper versigtig maar stewig op die rand van die emmer, wat stewig met die hand vasgehou word, geplaas, en dwarsoor die rand gestoot; die skraper mag nie rol nie. Die vier-in-een-skaal word op 'n gelyke stewige oppervlakte geplaas en in ewewig gebring, en die hawer wat in die emmer is, word in die pan van die vier-in-een-skaal gegooi en geweeg om die gewig per skepel te bepaal.

Die skepelgewig moet tweekeer met elke monster bepaal word. As die twee lesings nie ooreenstem nie, moet die toets met 'n nuwe gevryfde monster herhaal word.

(4) *Bepaling van persentasie uitgedopte hawer.*—Die persentasie uitgedopte hawer in hawer word bepaal deur die uitgedopte hawer met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die uitgedopte hawer aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die hoeveelheid uitgedopte hawer in die monster. As die

percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(5) *Determination of Percentage of Black, Grey or Chocolate-coloured Oats.*—The percentage of black, grey or chocolate-coloured oats in oats is determined by hand-picking duplicate 50-gramme samples. The weight of the black, grey or chocolate-coloured oats so obtained expressed as a percentage of the total weight of the sample, gives the percentage of such oats in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the averages of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(6) *Determination of Percentage of Foreign Matter.*—The percentage of foreign matter in oats is determined by hand-picking duplicate 50-gramme samples. The weight of the foreign matter so obtained, expressed as a percentage of the total weight of the sample, gives the foreign matter content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

NOTE.—If a sample contains fine sand, separation of the sand may be facilitated by the use of a suitable sieve.

(7) *Determination of Percentage of Other Grain and Unthreshed Ears.*—The percentage of other grain and unthreshed ears in oats is determined by hand-picking duplicate 50-gramme samples. The weight of other grain and unthreshed ears so obtained, expressed as a percentage of the total weight of the sample, gives the other grain and unthreshed ears content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(8) *Determination of Percentage of Damaged Oats.*—The percentage of damaged kernels in oats is determined by hand-picking duplicate 25-gramme samples. The weight of the damaged oats so obtained, expressed as a percentage of the total weight of the sample, gives the damaged oat-content of the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(9) *Determination of Moisture-content.*—The moisture-content of the oats shall be determined by the standard Brown-Duvel moisture test for oats as described below.

METHOD OF TESTING.

The standard Brown-Duvel moisture testing apparatus is assembled in a place away from draughts. Fifty grammes of oats are introduced into the flask, and 150 c.c. of moisture-testing oil added. The oats and oil must be well mixed by shaking. The opening of the flask is closed by means of a rubber stopper through which passes a standard thermometer, so adjusted that four-fifths of the mercury bulb is submerged in the oats and oil. Only correctly graduated centigrade thermometers, specially made for this apparatus, may be used. The flask is then placed in the Brown-Duvel apparatus, and the arm of the flask is connected to the condenser tube so that it fits properly. The wire gauze with asbestos centre below the flask must be in good condition, and so adjusted that when the flask is heated, the flame plays directly in the centre of the asbestos. The stand upon which the flask rests should be of such a height that the bottom of the flask is about $\frac{3}{8}$ inch above the asbestos. A correctly graduated measuring cylinder is placed under the condenser tube to collect the water driven off. A continuous

verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(5) *Bepaling van persentasie swart, grys of sjokoladekleurige hawer.*—Die persentasie swart, grys of sjokoladekleurige hawer in hawer word bepaal deur dit met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die swart, grys of sjokoladekleurige hawer aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie van sulke hawer in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(6) *Bepaling van persentasie vreemde materiaal.*—Die persentasie vreemde materiaal in hawer word bepaal deur die vreemde materiaal met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die vreemde materiaal aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie vreemde materiaal in die monster. As die verskil in die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

OPMERKING.—As 'n monster fyn sand bevat, kan afskeiding van die sand vergemaklik word met behulp van 'n geskikte sif.

(7) *Bepaling van persentasie ander graan en ongedorste are.*—Die persentasie ander graan en ongedorste are in hawer word bepaal deur die ander graan en ongedorste are met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die ander graan en ongedorste are aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie ander graan en ongedorste are in die monster. As die verskil in die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(8) *Bepaling van persentasie beskadigde hawer.*—Die persentasie beskadigde hawer word bepaal deur die beskadigde korrels met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die beskadigde hawer aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie beskadigde hawer van die monster. As die verskil in die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(9) *Bepaling van voggehalte.*—Die voggehalte van hawer word bepaal deur die Brown-Duvel-standaardtoets vir voggehalte van hawer soos hieronder beskryf.

TOETSMETODES.

Die apparaat word op 'n plek waar daar geen trek is nie opgerig. 50 gram hawer word in die fles gegooi en 150 kubieke sentimeter vogtoetsolie bygevoeg. Die hawer en olie word deeglik gemeng deur die fles te skud. Die opening van die fles word gesluit met 'n gomlastiekprop waardeur 'n standaardtermometer gaan wat so gestel is dat vier-vyfdes van die kwiksilwerbol in die olie en hawer versink is. Slegs korrek gegradeerde Celsius-termometers, spesiaal vir die apparaat gemaak, mag gebruik word. Die fles word dan in die Brown-Duvel-apparaat geplaas, en die arm van die fles met die kondenseerbuis verbind sodat dit goed pas. Die gaasdraad met asbesmiddelstuk onder die fles moet in goeie toestand wees en so gestel word dat die vlam direk onder die middel van die asbes is terwyl die fles verhit word. Die staander waarop die fles rus, moet so hoog wees dat die bodem van die fles omtrent $\frac{3}{8}$ duim bo die asbes is. 'n Korrek gegradeerde maatglas word

stream of cold water should pass through the condenser tank, or, if a small single-compartment Brown-Duvel outfit with no provision for a stream of water is used, the tank should be filled with cold water before such test.

The cover is then placed over the flask compartment and heating started. Heating may be brought about by electrical elements, coal-gas blow-lamps or alcohol burners (spirit lamps) as supplied for the apparatus. In all cases, however, the heat must be so regulated that the temperature of 195° C. is reached in not less than 19 minutes and not more than 21 minutes. A longer heating time gives results too low and a shorter time results too high. The heat must be cut off immediately the temperature reaches 195° C. (Normally it takes 10 minutes for the temperature to rise to about 110°-120° C. and a further 10 minutes to rise to 195° C.)

If the moisture-content of the sample is very high, foaming and bubbling over may result with the normal method of heating. Under such conditions the best way of getting the true moisture-content is to heat rapidly until the oil bubbles, and them to apply little heat until a few cubic centimetres of water have been driven off. The heat may then be turned on to normal again and the remaining moisture driven off without foaming within the prescribed period of heating.

After the heat has been cut off a slight gradual rise in temperature is to be expected. A sudden increase or a sudden decrease in temperature of several degrees indicates that the flame was too intense during the latter part of heating and the test should be repeated. If the water which distils over is discoloured, the oats have evidently been burned and the test must be repeated.

Neither the cover nor the thermometer must be removed until the temperature has dropped to 160° C. After the temperature has fallen to 160° C. or lower, the cover and the thermometer are removed, and then the delivery tube is disconnected.

All drops clinging to the sides of the measuring cylinder are shaken down and the percentage of moisture read off. The reading is taken beneath the layer of oil floating on the water. Results must be read to one-tenth of one per cent. All tests must be made in duplicate and if the difference between the two readings does not exceed 0·2, the average of the two readings, multiplied by 2, shall be taken as the moisture-content; if the said difference exceeds 0·2, the test must be repeated.

When this apparatus is used care should be taken to avoid the use of mushy rubber stoppers, to clean and dry the measuring flasks before using for a test, not to use oil directly from a previous test and to see that the column of mercury in the thermometer is unbroken before any test is commenced with.

Either fresh oil or oil which has not been used for some time should be used for every test and the oil should in any case be heated to a temperature of about 200° C. and allowed to cool before use.

DEFINITIONS.

3. For the purposes of this Schedule—

"oats" shall mean the kernels, or pieces of the kernels, hulled or dehulled, of the varieties of the *Avena byzantina, Avena sativa* or *Avena nuda* species; provided that for the purpose of determining the percentage of black, grey or chocolate-coloured oats, the term "oats" shall mean oats of the genus *Avena*;

"other grain" shall mean the kernels or pieces of the kernels of barley, rye and wheat;

"unthreshed ears" shall mean ears and bits of ears of wheat, barley, oats, and rye which still contain caryopses or kernels, as the case may be;

"foreign matter" shall mean all material other than oats, other grain and unthreshed ears;

"bushel weight" shall mean weight per imperial bushel;

onder die kondenseerbuis geplaas om die water wat afgedryf word, op te vang. 'n Onafgebroke stroom koue water moet deur die kondenseertenk loop, of, as 'n klein enkelvak-Brown-Duvel-apparaat sonder voorsiening vir 'n stroom water gebruik word, moet die tenk voor elke toets met koue water gevul word.

Die deksel word dan oor die fleshouer geplaas en die verhitting begin. Verhitting kan geskied deur middel van elektrisiteit, koolgasblaaslampe of alkohollampe (spiritus-lampe) soos vir die apparaat verskaf word. In alle gevalle moet die hitte egter so gereël word dat die temperatuur van 195° C. in minstens 19 minute maar hoogstens 21 minute bereik word. As dit langer duur, sal die resultate te laag wees, en as dit korter duur, sal die resultate te hoog wees. Die verhitting moet dadelik stopgesit word sodra die temperatuur van 195° C. bereik word. Gewoonlik duur dit 10 minute voordat die temperatuur styg tot omtrent 110° C. -120° C., en nog 10 minute voordat 195° C. bereik word.)

As die voggehalte van die monster besonder hoog is, kan skuim gevorm word en die inhoud oorkook as die normale metode van verhitting toegepas word. Onder sulke omstandighede kan die regte voggehalte die beste bepaal word deur die mengsel vinnig te verhit totdat opborreling van olie plaasvind, en dan min hitte te gee totdat 'n paar kubieke sentimeter water afgedryf is. Die normale verhitting kan dan weer toegepas en die orige vog sonder skuimvorming binne die voorgeskrewe tydperk deur verdamping verwyder word. Nadat die verhitting ophou, kan 'n geringe geleidelike styging in temperatuur verwag word. 'n Skielike styging of daling van verskeie grade in die temperatuur toon aan dat die vlam te warm was gedurende die laaste deel van die verhitting, en in dié geval moet die toets herhaal word. As die water wat oorstook, verkleur is, dui dit aan dat die hawer gebrand het en dan moet die toets herhaal word.

Die deksel en termometer moet nie verwyder word voordat die temperatuur tot 160° C. gedaal het nie. Daar moet gewag word totdat die temperatuur tot 160° C. of laer gedaal het, en die deksel en die termometer verwyder en die afleweringsbuisie losgemaak word.

Alle druppels water wat aan die kante van die maatglas hang, word neergeskud en die persentasie vog afgelees. Die lesing word geneem onder die laag olie wat bo-op die water dryf. Resultate moet afgelees word tot een-tiende van een persent. Alle toetse moet twee keer gedoen word en as die verskil tussen die twee lesings nie groter as 0·2 is nie, word die gemiddelde van die twee lesings met twee vermenigvuldig en as die voggehalte geneem; as genoemde verskil groter as 0·2 is, moet die toets herhaal word.

By die gebruik van hierdie apparaat moet gesorg word dat geen voos gomlastiekproppe gebruik word nie, dat die maatglase skoon en droog gemaak word voordat dit gebruik word, dat geen olie onmiddellik na 'n vorige toets weer gebruik word nie, en dat die kwiksilwerkolom in die termometer ongebroke is voordat met 'n toets begin word.

Vir iedere toets moet òf vars olie òf olie wat vir 'n tydlank nie gebruik is nie, gebruik word; in elk geval moet de olie tot 'n temperatuur van ongeveer 200° C. verhit word en eers afkoel voordat dit gebruik word.

WOORDBEPALING.

3. Vir die toepassing van hierdie Bylae beteken—

„hawer", die korrels of stukkies korrels, met of sonder blomdoppies, van die variëteite van die soorte *Avena byzantina, Avena sativa* of *Avena nuda;* met dien verstande dat vir die bepaling van die persentasie swart, grys of sjokoladekleurige hawer, die uitdrukking „hawer" hawer van die genus *Avena* beteken;

„ander graan", die korrels of stukkies korrels van gars, rog en koring;

„ongedorste are", are en gedeeltes van are van hawer, gars, koring en rog wat nog caryopses of korrels, na gelang van die geval, bevat;

„vreemde materiaal", alle materiaal behalwe hawer, ander graan en ongedorste are;

„skepelgewig", gewig per imperiale skepel;

" dehulled oats " shall mean oat kernels from which the enclosing flowering glumes have been removed;

" black, grey or chocolate-coloured oats " shall mean the kernels or pieces of kernels, hulled or dehulled, which have naturally black, grey or chocolate-coloured flowering glumes or naturally black or grey caryopses;

" insects injurious to oats " shall mean the grain weevil (*Sitophilus granarius*), the rice weevil (*Sitophilus oryzae*), the Australian wheat weevil (*Rhizopertha dominica* Fab.), and the Angoumois grain moth (*Sitotroga cerealla*);

" damaged grain " shall mean—

(*a*) oat and other grain kernels which have been damaged by insects injurious to oats; or

(*b*) sprouted oat and other grain kernels in which germination or sprouting has proceeded so far that the developing rootlets can be clearly seen; or

(*c*) mould infected oat and other grain kernels which can be seen to be infected with mould organisms;

" smutty oats " shall mean oats which are infected with smut to such an extent that it has an unmistakable odour of stinking smut, or contains more than 6 smut masses or balls (or portions of balls equivalent to more than 6 smut balls) per 100 grammes of oats;

" moisture-testing oil " shall mean—

(*a*) " Pan " salad and cooking oil, manufactured by the Epic Oil Mills (Pty.), Limited;

(*b*) " Epic " salad and cooking oil, manufactured by the Epic Oil Mills (Pty.), Limited; or

(*c*) " Consol Oil " manufactured by the Epic Oil Mill (Pty.), Limited.

★ No. 2109.] [15 October 1954.

WINTER CEREAL SCHEME.

GRADING OF BARLEY.

His Excellency the Governor-General has, under the powers vested in him by section *forty-three* of the Marketing Act, 1937 (Act No. 26 of 1937), as amended, made the regulations set forth in the Schedule hereto relating to the grading of barley according to quality. The said regulations shall come into force on the first day of November, 1954, in substitution for the regulations published under Government Notice No. 2262 of the 21st October, 1949.

SCHEDULE.

1. (1) All barley shall for grading purposes be divided into four classes, viz.—

(*a*) class A barley, which shall mean barley consisting of at least 90 per cent by weight of one or more of the hulled varieties of six-row barley of the species *Hordeum vulgare*; provided that no hulled black varieties whatsoever may be present in this class of barley;

(*b*) class B barley, which shall mean barley consisting of at least 90 per cent by weight of one or more of the hulled varieties of two-row barley of the species *Hordeum distichon*; provided that no hulled black varieties whatsoever may be present in this class of barley;

(*c*) class C barley, which shall mean barley consisting of one or more hulled varieties of barley not falling under class A or class B barley, or of mixtures of hulled varieties falling under those classes, but containing less than 90 per cent by weight of those varieties or of mixtures of hull-less varieties falling under class D but containing less than 80 per cent by weight of those varieties, or of a standard below that prescribed for grade 4 in the tables in sub-regulations (2) and (3) and for grade 3 in the table in sub-regulation (5); and

„ uitgedopte hawer ", hawerkorrels waarvan die omsluitende blomdoppies verwyder is;

„ swart, grys of sjokoladekleurige hawer ", die korrels of stukkies korrels, met of sonder blomdoppies, wat natuurlike swart, grys of sjokoladekleurige blomdoppies of natuurlike swart of grys caryopses het;

„ insekte wat vir hawer skadelik is ", die graankalander (*Sitophilus granarius*), die ryskalander (*Sitophilus oryzae*), die Australiese koringkalander (*Rhizopertha dominica* Fab.) en die Angoumois-graanmot (*Sitotroga cerealla*);

„ beskadigde graan "—

(*a*) hawer- en ander graankorrels wat beskadig is deur insekte wat vir hawer skadelik is; of

(*b*) uitgeloopte hawer- en ander graankorrels waarin ontkieming of spruiting so ver gevorder is dat die ontwikkelende worteltjies duidelik sigbaar is; of

(*c*) skimmelbesmette hawer- en ander graankorrels waarop skimmelorganismes duidelik sigbaar is;

„ brandbesmette hawer ", hawer wat in so 'n mate met brand besmet is dat dit 'n onmiskenbare stinkbrandreuk het, of meer as ses brandmassas of -korrels (of stukkies korrels gelyk aan meer as ses brandkorrels) per 100 gram hawer bevat;

„vogtoetsolie "—

(*a*) „ Pan "-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.;

(*b*) „ Epic "-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.; of

(*c*) „ Consol "-olie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.

★ No. 2109.] [15 Oktober 1954.

WINTERGRAANSKEMA.

GRADERING VAN GARS.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemarkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies uiteengesit in die Bylae hiervan gemaak met betrekking tot die gradering van gars volgens kwaliteit. Genoemde regulasies tree op die eerste dag van November 1954 in werking ter vervanging van die regulasies afgekondig by Goewermentskennisgewing No. 2262 van 21 Oktober 1949.

BYLAE.

1. (1) Alle gars word vir graderingsdoeleindes in vier klasse ingedeel, naamlik:—

(*a*) Klas A-gars, wat beteken gars bestaande uit minstens 90 persent, volgens gewig, van een of meer van die bedekte variëteite sesrygars van die soort *Hordeum vulgare;* met dien verstande dat geen bedekte swart variëteite hoegenaamd in hierdie klas gars aanwesig mag wees nie;

(*b*) klas B-gars, wat beteken gars bestaande uit minstens 90 persent, volgens gewig, van een of meer van die bedekte variëteite tweerygars van die soort *Hordeum distichon;* met dien verstande dat geen bedekte swart variëteite hoegenaamd in hierdie klas gars aanwesig mag wees nie;

(*c*) klas C-gars, wat beteken gars bestaande uit een of meer bedekte variëteite gars wat nie in klas A- of klas B-gars val nie, of uit mengsels van bedekte variëteite wat in daardie klasse val maar minder as 90 persent, volgens gewig, van daardie variëteite bevat, of uit mengsels van kaalgarsvariëteite wat in klas D-gars val maar minder as 80 persent, volgens gewig, van daardie variëteite bevat, of van 'n laer standaard as dié voorgeskryf vir graad 4 in die tabelle in subregulasies (2) en (3) en dié vir graad 3 in die tabel in subregulasie (5); en

(*d*) class D barley, which shall mean barley consisting of at least 80 per cent by weight of one or more of the varieties of hull-less barley.

(2) Class A barley shall, subject to the provisions of sub-regulations (6) and (7), be graded in accordance with the requirements specified for the respective grades in the following table:—

(*d*) klas D-gars, wat beteken gars bestaande uit minstens 80 persent, volgens gewig, van een of meer van die kaalgarsvariëteite.

(2) Klas A-gars word, behoudens die bepalings van subregulasies (6) en (7), ooreënkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer:—

Grade.	Maximum Percentage by Weight of Plump Kernels.	Colour.	Maximum Percentage by Weight of Mechanically Damaged Kernels and Hull-less Barley Kernels.	Maximum Percentage by Weight of Dead-end and Badly Discoloured Kernels.	Maximum Percentage of Mositure.	Maximum Percentage by Weight of Waste.	Maximum Percentage by Weight of Foreign Matter.	Maximum Percentage by Weight of Damaged Grain.	Maximum Percentage by Weight of Mechanically Damaged and Hull-less Barley Kernels, *plus* Dead-end and Badly Discoloured Kernels, *plus* Waste, *plus* Foreign Matter, *plus* Damaged Grain.
1	80	Good	12	6	13	3	2	2	20
2	70	Medium	15	12	13	6	3	3	25
3	60	Fair	18	20	13	9	4	5	35
4	60	Weak	18	20	13	9	4	5	35

Graad.	Minimum persentasie vet korrels, volgens gewig.	Kleur.	Maksimum persentasie meganies beskadigde korrels en kaalgarskorrels, volgens gewig.	Maksimum persentasie swartpunt- en erg verkleurde korrels, volgens gewig.	Maksimum persentasie vog.	Maksimum persentasie sifsels, volgens gewig.	Maksimum persentasie vreemde materiaal, volgens gewig.	Maksimum persentasie beskadigde graan, volgens gewig.	Maksimum persentasie meganies beskadigde en kaalgarskorrels *plus* swartpunt- en erg verkleurde korrels, *plus* sifsels, *plus* vreemde materiaal, *plus* beskadigde graan, volgens gewig.
1	80	Goed	12	6	13	3	2	2	20
2	70	Medium	15	12	13	6	3	3	25
3	60	Taaml. goed	18	20	13	9	4	5	35
4	60	Swak	18	20	13	9	4	5	35

(3) Class B barley shall, subject to the provisions of sub-regulations (6) and (7), be graded in accordance with the requirements specified for the respective grades in the following table:—

(3) Klas B-gars word, behoudens die bepalings van subregulasies (6) en (7), ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer:—

Grade.	Minimum Percentage by Weight of Plump Kernels.	Colour.	Maximum Percentage by Weight of Mechanically Damaged Kernels and Hull-less Barley Kernels.	Maximum Percentage by Weight of Dead-end and Badly Discoloured Kernels.	Maximum Percentage of Mositure.	Maximum Percentage by Weight of Waste.	Maximum Percentage by Weight of Foreign Matter.	Maximum Percentage by Weight of Damaged Grain.	Maximum Percentage by Weight of Mechanically Damaged and Hull-less Barley Kernels, *plus* Dead-end and Badly Discoloured Kernels, *plus* Foreign Matter, *plus* Waste, *plus* Damaged Grain.
1	80	Good	16	6	13	3	2	2	20
2	70	Medium	20	12	13	6	3	3	25
3	60	Fair	25	20	13	9	4	5	35
4	60	Fair	30	20	18	9	4	5	45

Graad.	Minimum persentasie vet korrels, volgens gewig.	Kleur.	Maksimum persentasie meganies beskadigde korrels en kaalgarskorrels, volgens gewig.	Maksimum persentasie swartpunt- en erg verkleurde korrels, volgens gewig.	Maksimum persentasie vog.	Maksimum persentasie sifsels, volgens gewig.	Maksimum persentasie vreemde materiaal, volgens gewig.	Maksimum persentasie beskadigde graan, volgens gewig.	Maksimum persentasie meganies beskadigde en kaalgarskorrels, *plus* swartpunt- en erg verkleurde korrels, *plus* vreemde materiaal, *plus* sifsels, *plus* beskadigde graan, volgens gewig.
1	80	Goed	16	6	13	3	2	2	20
2	70	Medium	20	12	13	6	3	3	25
3	60	Taaml. goed	25	20	13	9	4	5	35
4	60	Taaml. goed	30	20	13	9	4	5	45

(4) Class C barley shall, subject to the provisions of sub-regulations (6) and (7), be graded in accordance with the requirements specified for the respective grades in the following table:—

(4) Klas C-gars word, behoudens die bepalings van sub-regulasies (6) en (7), ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer:—

Grade.	Minimum Bushel Weight.	Maximum Percentage by Weight of Other Grain and Unthreshed Ears.	Foreign Matter.		Maximum Percentage of Moisture.	Maximum Percentage of Damaged Grain.	Maximum Percentage by Weight of Damaged Grain, *plus* Foreign Matter.
			Maximum Percentage by Weight of Foreign Matter including Sand, Gravel and Stones.	Maximum Percentage by Weight of Sand, Gravel and Stones.			
	lb.						
1.....	48	5	4	0·5	13	5	8
2.....	46	12	6	0·5	13	10	12
3.....	42	20	10	0·5	13	15	18
Undergrade...	Less than 42 lb.	More than 20 %	More than 10 %	More than 0·5%	More than 13 %	More than 15 %	More than 18 %

Graad.	Minimum skepelgewig.	Maksimum persentasie ander graan en ongedorste are, volgens gewig.	Vreemde materiaal.		Maksimum persentasie vog.	Maksimum persentasie beskadigde graan, volgens gewig.	Maksimum persentasie beskadigde graan, *plus* vreemde materiaal, volgens gewig.
			Maksimum persentasie vreemde materiaal, volgens gewig, met inbegrip van sand, gruis en klippies.	Maksimum persentasie sand, gruis en klippies volgens gewig.			
	lb.						
1.....	48	5	4	0·5	13	5	8
2.....	46	12	6	0·5	13	10	12
3.....	42	20	10	0·5	13	15	18
Ondergraad...	Minder as 42 lb.	Meer as 20 %	Meer as 10 %	Meer as 0·5%	Meer as 13 %	Meer as 15 %	Meer as 18 %

(5) Class D barley shall, subject to the provisions of sub-regulations (6) and (7), be graded in accordance with the requirements specified for the respective grades in the following table:—

(5) Klas D-gars word, behoudens die bepalings van sub-regulasies (6) en (7), ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel uiteengesit, gegradeer:—

Grade.	Minimum Bushel Weight.	Maximum Percentage by Weight of Other Grain and Unthreshed Ears.	Maximum Percentage by Weight of Hulled Barley.	Foreign Matter.		Maximum Percentage of Moisture.	Maximum Percentage by Weight of Damaged Grain.	Maximum Percentage by Weight of Damaged Grain, *plus* Foreign Matter.
				Maximum Percentage by Weight of Foreign Matter including Sand, Gravel and Stones.	Maximum Percentage by Weight of Sand, Gravel and Stones.			
	lb.							
1	60	4	4	4	0·5	13	5	8
2	53	6	10	6	0·5	13	10	12
3	54	10	20	10	0·5	13	15	18

Graad.	Minimum skepelgewig.	Maksimum persentasie ander graan en ongedorste are, volgens gewig.	Maksimum persentasie bedekte gars, volgens gewig.	Vreemde materiaal.		Maksimum persentasie vog.	Maksimum persentasie beskadigde graan volgens gewig.	Maksimum persentasie beskadigde graan, *plus* vreemde materiaal, volgens gewig.
				Maksimum persentasie vreemde materiaal, volgens gewig, met inbegrip van sand, gruis en klippies.	Maksimum persentasie sand, gruis en klippies volgens gewig.			
	lb.							
1	60	4	4	4	0·5	13	5	8
2	58	6	10	6	0·5	13	10	12
3	54	10	20	10	0·5	13	15	18

(6) Any barley which contains barley or other grain kernels damaged by insects injurious to barley, but is free from live insects injurious to barley, shall be graded one grade lower than that determined in accordance with the table set out in sub-regulation (2), (3), (4) or (5), as the case may be; provided that barley containing barley or other grain kernels damaged by insects injurious to barley and received by a purchaser on or after the first day of April in any year shall not be degraded in accordance with the terms of this sub-regulation if that barley was threshed before the said first day of April in that year or at any time during a previous year.

(7) Any barley which does not conform to the requirements for one or other of the grades set out in the table in sub-regulation (4), or which—

(*a*) is not fit for human or animal consumption; or

(*b*) is smutty; or

(*c*) has a musty or any other objectionable odour; or

(*d*) has been treated with any chemical which renders the barley unfit for human or animal consumption; or

(*e*) is commercially objectionable because it contains any poisonous weeds or weed seeds or any chemical or other substance likely to be deleterious to the health of human beings or animals; or

(*f*) complies with the requirements for grade 3 of class C barley but contains barley or other grain kernels damaged by insects injurious to barley; or

(*g*) contains live insects injurious to barley;

shall be undergrade barley; provided that barley having live insects injurious to barley present therein and received by a purchaser on or after the first day of April in any year shall not be undergrade barley if that barley was threshed before the said first day of April in that year or at any time during a previous year.

METHODS OF TESTING.

2. (1) *Taking of Samples*—

(*a*) *of barley in bags*—samples for the purpose of testing barley in bags shall be obtained by the taking of small quantities of barley from each bag by means of a grain probe, different levels in the bag being probed. Probing must in all cases be done towards the centre of the bag. If the barley from all the bags in a lot is found to be generally of the same class and quality, the samples from all the bags are thrown together into a pan. The class and grade are then determined from the sample in the pan after the barley in the pan has been thoroughly mixed. Any bags containing barley differing in any respect from the barley in the other bags must be placed aside and graded separately;

(*b*) *of barley in bulk*—samples for the purpose of testing barley in bulk shall be obtained by taking small quantities from the bulk with a double-tube multiple-compartment probe of suitable length at different places scattered as widely as possible, the probe to be pushed in as deeply as possible.

(2) *Classification.*—When it is necessary to determine the percentages of varieties or species of barley for the determination of the class thereof, duplicate 25-gramme samples must be hand-picked for the separation of the various varieties and species. The percentage of admixture is determined by weight. If the difference between the percentages determined in respect of the two samples does not exceed 0·5 the average of the two percentages thus determined shall be taken; if the said difference exceeds 0·5 the test must be repeated.

If the barley contains foreign matter or other grain, 100 grammes of the barley shall first be taken and all foreign matter and other grain removed by hand-picking. Duplicate 25-gramme samples are then taken of the barley from which the foreign matter and other grain have been so removed, and the class determined in the manner described in this sub-regulation.

(6) Gars wat gars- of ander graankorrels bevat wat beskadig is deur insekte wat skadelik is vir gars, maar wat vry is van lewende insekte wat skadelik is vir gars, word een graad laer gegradeer as dié wat ooreenkomstig die tabel in subregulasie (2), (3), (4) of (5), na gelang van die geval, bepaal word; met dien verstande dat gars wat gars- of ander graankorrels bevat wat beskadig is deur insekte wat skadelik is vir gars en wat op of na die eerste dag van April in enige jaar deur 'n koper ontvang word, nie ooreenkomstig die bepalings van hierdie subregulasie een graad laer gegradeer word as daardie gars voor genoemde eerste dag van April in daardie jaar of te eniger tyd gedurende die vorige jaar gedors is nie.

(7) Gars wat nie aan die vereistes vir een of ander van die grade gespesifiseer in die tabel wat in subregulasie (4) uiteengesit is, voldoen nie, of wat—

(*a*) nie vir verbruik deur mens of dier geskik is nie; of

(*b*) met brand besmet is; of

(*c*) 'n muf of ander reuk wat af te keur is, het; of

(*d*) met 'n chemiese stof behandel is en as gevolg daarvan nie vir verbruik deur mens of dier geskik is nie; of

(*e*) in die handel af te keur is omdat dit giftige onkruid of onkruidsaad of 'n chemiese stof of ander materiaal bevat, wat moontlik vir die gesondheid van mens of dier nadelig kan wees; of

(*f*) aan die vereistes vir graad 3 van klas C-gars voldoen, maar gars- of ander graankorrels bevat wat beskadig is deur insekte wat vir gars skadelik is; of

(*g*) lewende insekte bevat wat vir gars skadelik is;

is ondergraadgars; met dien verstande dat gars waarin lewende insekte wat vir gars skadelik is, aanwesig is, en wat op of na die eerste dag van April in enige jaar deur 'n koper ontvang word, nie ondergraadgars is nie as daardie gars voor genoemde eerste dag van April in daardie jaar of te eniger tyd gedurende 'n vorige jaar gedors is.

TOETSMETODES.

2. (1) *Monsterneming*—

(*a*) *gars in sakke*—monsters vir die toets van gars in sakke word verkry deur klein hoeveelhede gars op verskillende hoogtes met 'n steker uit elke sak te neem. Die steker moet in alle gevalle diep in die sak ingesteek word. As daar gevind word dat die gars van al die sakke saam oor die algemeen van dieselfde klas en kwaliteit is, word die monsters van al die sakke saam in 'n pan gegooi. Die klas en graad word dan van die monsters in die pan bepaal nadat die gars in die pan deeglik gemeng is. Sakke waarvan die gars in enige opsig van die gars in die ander sakke verskil, word opsy gesit en afsonderlik gegradeer;

(*b*) *gars in massa*—monsters vir die toets van gars in massa word verkry deur klein hoeveelhede met 'n dubbelbuissteker met veelvoudige afskortings en van geskikte lengte op verskillende plekke, so verspreid moontlik, uit die massa te neem; die steker moet so diep as moontlik ingesteek word

(2) *Klassifisering.*—Waar dit nodig is om die persentasies van garsvariëteite of soorte gars vir die bepaling van die klas van die gars vas te stel, moet duplikaatmonsters van 25 gram elk met die hand uitgesoek word vir die skeiding van die verskillende variëteite en soorte. Die persentasie in die mengsel word volgens gewig bepaal. As die verskil tussen die persentasies ten opsigte van die twee monsters verkry, nie groter as 0·5 is nie, word die gemiddelde van die twee persentasies wat aldus verkry is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word. As die gars vreemde materiaal of ander graan bevat, word eers 100 gram van die gars geneem en alle vreemde materiaal en ander graan met die hand verwyder. Duplikaatmonsters van 25 gram elk van die gars waaruit die vreemde materiaal en ander graan aldus verwyder is, word dan geneem en die klas bepaal volgens dié wyse in hierdie subregulasie beskryf.

(3) *Determination of Bushel Weight.*—The bushel weight shall be determined by one or other of the following two methods:—

(*a*) *Chondrometer Method.*—The standard apparatus in this method is a chondrometer of standard dimensions, viz.—

Hopper.—Height, 8·9 inches; top diameter of hopper, 3·6 inches; diameter of shutter hole, 1·125 inches.

Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

Scraper.—A cylindrical hardwood scraper; height, 4·9 inches; diameter, 2·875 inches.

Base.—A flat, level piece of wood, ¾ inch thick and of a size not smaller than the base of the standard chondrometer box.

Bag.—A bag of strong linen cloth, 12 inches wide and 17 inches long, having a tape attached 1 inch below the open end for closing the bag.

Method of Using Apparatus.—In the case of barley of class C, 500 grammes of the well-mixed sample in the pan are weighed off and placed in the bag, which is then closed. The material in the bag is then briskly rubbed by hand on a hard board surface such as a table or bench. Rubbing is done by holding the closed end of the bag in one hand, grasping a handful of the contents through the bag with the other hand at a time and rubbing this against the rest of the bag's contents. After each 5 or 6 rubs the contents are mixed by shaking the bag. Rubbing must be done for 1 minute. No rubbing is done in the case of barley of class D.

The wooden base is now placed on a hard, smooth, level surface not subject to jarring or shaking and the chondrometer, mounted on its box, is placed on the base. The drop of barley from the shutter hole to top of bucket must be 1·95 inches.

The hopper is filled with the rubbed sample from the bag in the case of barley of class C, and an unrubbed sample in the case of barley of class D, and scraped off level full. The bucket is then placed in front of the chondrometer directly beneath the centre of the hopper so that it rests firmly on the level surface used. Thereupon the hopper shutter is opened wide with a quick swing, the barley being allowed to fill the bucket and to overflow on all sides, after which the chondrometer box and the base are moved back 6 inches without jarring or shaking the bucket and the hopper swung away. The surplus barley is then scraped off with the scraper, the bucket being left just level full. The scraper must be placed gently but firmly on the rim of the bucket which is held firmly with one hand and pushed straight across the rim; the scraper must not be allowed to roll. The bucket and the barley is then weighed on the counterpoise beam of the chondrometer, care being taken to have the beam exactly horizontal before the weight is read.

The bushel weight must be determined twice on each sample. If the two readings do not agree, the test must be repeated on a new rubbed sample, in the case of barley of class C, and an unrubbed sample in the case of barley of class D.

(*b*) *The Two-level Bushel-funnel Method.*—The standard apparatus in this method is the following:—

A four-in-one scale.

A Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

(3) *Bepaling van skepelgewig.*—Die skepelgewig word bepaal volgens een van onderstaande twee metodes:—

(*a*) *Chondrometer-metode.*—Die standaardapparaat by hierdie metode is 'n chondrometer (skepelgewigskaaltjie) van standaardafmetings, naamlik:—

Tregter.—Hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud, 34·675 kubieke duim, dit wil sê, een pint (imperiaal).

Skraper.—'n Silindervormige hardehoutskraper; hoogte, 4·9 duim; deursnee, 2·875 duim.

Voetstuk.—'n Plat, gelyk stuk hout, ¾ duim dik en minstens so groot as die bodem van die standaardchondrometerkas.

Sak.—'n Sak van sterk linnedoek, 12 duim wyd en 17 duim lank, met 'n band 1 duim onderkant die bek om die sak mee toe te bind.

Metode van bepaling.—In die geval van gars van die klas C word 500 gram van die goed gemengde monster in die pan geweeg en in die sak gegooi, en die sak toegebind. Die materiaal in die sak word dan deeglik met die hand gevryf op 'n harde oppervlakte soos die blad van 'n tafel of werksbank. Die monster word gevryf deur die bek van die sak in die een hand vas te hou, terwyl 'n handvol van die inhoud op 'n slag met sak en al teen die orige gedeelte van die monster in die sak gevryf word. Na elke vyf of ses keer se vryf word die inhoud weer gemeng deur die sak te skud. Die monster moet vir een minuut gevryf word. In die geval van klas D-gars word die gars nie gevryf nie.

Die voetstuk van hout word nou op 'n harde, effe oppervlakte geplaas wat nie gestamp of geskud kan word nie, en die chondrometer, wat op sy kas vasgeskroef is, word op die voetstuk geplaas. Die val van die gars van die klepgat na die top van die emmer moet 1·95 duim wees.

Die tregter word in die geval van gars van klas C met die gevryfde monster uit die sak, en in die geval van gars van klas D met 'n ongevryfde monster, gevul en afgeskraap sodat dit gelykvol is. Die emmer word voor die chondrometer op die effe oppervlakte geplaas sodat die middelpunt van sy bodem reg onder dié van die tregterklep staan. Die emmer moet vas staan op die effe oppervlakte wat gebruik word. Dan word die tregterklep wyd oopgestoot met 'n vinnige swaai sodat die gars die emmer vol maak en aan alle kante oorloop, waarna die chondrometerkas en die voetstuk 6 duim agteruit geskuif word sonder dat die emmer geskud of gestamp word. Die oortollige gars word dan van die emmer afgeskraap met die skraper, sodat die emmer net gelykvol is. By die afskraap word die skraper versigtig maar stewig op die rand van die emmer, wat stewig met die een hand vasgehou word, geplaas en dwarsoor die rand gestoot; die skraper mag nie rol nie. Die emmer met gars word nou op die teenwigarm van die chondrometer geweeg. Hier moet gesorg word dat die teenwigarm presies waterpas staan voordat die gewig afgelees word.

Die skepelgewig moet tweekeer met elke monster bepaal word. As die twee lesings nie ooreenstem nie, moet die toets in die geval van gars van klas C met 'n nuwe gevryfde monster herhaal word, en in die geval van gars van klas D met 'n ongevryfde monster.

(*b*) *Die tweevlakskepeltregtermetode.*—Die standaardapparaat by hierdie metode is as volg:—

'n Vier-in-een-skaal.

'n Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud, 34·675 kubieke duim, d.w.s., een pint (imperiaal).

A Conical Hopper.—With a swing shutter at the narrow end, attached to a two-level metal base by means of an upright metal rod; the dimensions of the hopper are as follows: vertical height, 8·9 inches; top diameter, 3·6 inches; diameter of shutter hole, 1·125 inches.

The conical hopper is attached to the upright rod by means of a metal arm fitting over and able to rotate round the upright at one end and fixed to the conical hopper at the other end. When the hopper is in position, its centre line must be vertical. The lower level, which should give a clearance of 1·95 inches between the bottom rim of the hopper and the rim of the bucket, is used for testing barley.

Scraper.—A cylindrical hardwood scraper; height, 4·9 inches; diameter, 2·875 inches.

Bag.—A bag of strong linen cloth 12 inches wide and 17 inches long, having a tape attached 1 inch below the open end for closing the bag.

Method of Using Apparatus.—In the case of barley of class C, 500 grammes of the well-mixed sample in the pan are weighed, placed in the bag and rubbed as described in paragraph (*a*) of this sub-regulation. No rubbing is done in the case of barley of class D.

The entire apparatus is placed on a hard, smooth, level surface, not subject to jarring or shaking. The hopper is filled with the rubbed sample from the bag or unrubbed sample from the pan, as the case may be, and scraped off level full. The bucket is then placed on the base of the stand so that its centre is directly below that of the hopper shutter. The bucket must rest firmly on this base. Thereupon the hopper shutter is opened wide with a quick swing, the barley being allowed to fill the bucket and to overflow on all sides. The hopper is then swung round, away from the bucket, without disturbing the bucket in any way. The surplus barley is then scraped off with the scraper, the bucket being left just level full. The scraper must be placed gently but firmly on the rim of the bucket, which is held firmly with one hand, and the scraper pushed straight across the rim. The scraper must not be allowed to roll. The four-in-one scale is placed on a firm base and balanced, the barley in the bucket poured into the pan of the four-in-one scale and weighed to determine the weight per bushel.

The bushel weight must be determined twice on each sample. If the two readings do not agree, the test must be repeated on a new rubbed sample in the case of barley of class C, and an unrubbed sample in the case of barley of class D.

(4) *Determination of Percentage of Plump Kernels, Foreign Matter and Waste in Barley of Class A and Class B.*—The percentage of plump kernels, foreign matter and waste in barley of class A and class B is determined by the use of the standard barley sieving apparatus.

Duplicate 100-gramme samples of rubbed barley are screened through the standard sieving apparatus in the following manner:—

The standard sieving apparatus is assembled, the grain placed on the top sieve and the lid placed in position. Screenings is then done on a hard, smooth, level surface, by moving the apparatus to and fro, alternatively away from and towards the operator, the direction of motion being in line with the long axis of the apparatus. Each to-and-fro movement constitutes one stroke, and 60 such strokes complete the screening process. In each stroke the sieve is moved 15 to 18 inches away from the operator and

'n Keëlvormige tregter—met 'n swaaiklep aan die nou end, wat deur middel van 'n regop metaalstaaf aan 'n tweevlakmetaalvoetstuk geheg is; die afmetings van die tregter as as volg: Vertikale hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Die keëlvormige tregter is aan die regop staaf geheg deur middel van 'n metaalarm wat aan die een end oor die regop staaf pas en daarom heen geswaai kan word en aan die ander end aan die tregter geheg is. Wanneer die tregter in posisie is, moet sy middellyn loodreg wees. Die laagste vlak, wat 'n afstand van 1·95 duim moet laat tussen die onderste rand van die tregter en die rand van die emmer, word vir die toets van gars gebruik.

'n Skraper.—'n Silindervormige hardehoutskraper, 4·9 duim hoog, en met 'n deursnee van 2·875 duim.

'n Sak.—'n Sak van sterk linnedoek, 12 duim wyd en 17 duim lank, en met 'n band 1 duim onderkant die bek om die sak mee toe te bind.

Metode van bepaling.—In die geval van gars van klas C word 500 gram van die goed gemengde monster in die pan geweeg, in die sak gegooi en gevryf soos in paragraaf (*a*) van hierdie subregulasie beskryf. In die geval van klas D-gars word die gars nie gevryf nie.

Die hele apparaat word op 'n harde, effe oppervlakte geplaas wat nie gestamp of geskud kan word nie. Die tregter word met die gevryfde monster uit die sak of ongevryfde monster uit die pan, na gelang van die geval, gevul en afgeskraap sodat hy net gelykvol is. Die emmer word nou op die voetstuk van die staander geplaas sodat sy bodem se middelpunt reg onder dié van die tregterklep is. Die emmer moet vas op die voetstuk staan. Die tregterklep word met 'n vinnige swaai oopgestoot sodat die gars die emmer vol maak en aan alle kante oorloop. Die tregter word omgeswaai, weg van die emmer af, sonder dat die emmer gestamp of gestoot word. Die oortollige gars word dan van die emmer afgeskraap met die skraper, sodat die emmer net gelykvol is. By die afskraap word die skraper versigtig maar stewig op die rand van die emmer, wat stewig met die een hand vasgehou word, geplaas en dwars oor die rand gestoot; die skraper mag nie rol nie. Die vier-in-een-skaal word op 'n stewige oppervlakte geplaas en in ewewig gebring, en die gars wat in die emmer is, word in die pan van die vier-in-een-skaal gegooi en geweeg om die gewig per skepel te bepaal.

Die skepelgewig moet twee keer met elke monster bepaal word. As die twee lesings nie ooreenstem nie, moet die toets in die geval van gars van klas C met 'n nuwe gevryfde monster, en in die geval van klas D-gars met 'n ongevryfde monster uit die pan, herhaal word.

(4) *Bepaling van persentasie vet korrels, vreemde materiaal en sifsels in gars van klas A en klas B.*—Die persentasie vet korrels, vreemde materiaal en sifsels in gars van klas A en klas B word bepaal deur gebruik te maak van die standaardgarssifapparaat.

Duplikaatmonsters van 100 gram gevryfde gars elk word op die volgende manier met die standaardsifapparaat gesif:—

Die standaardsifapparaat word inmekaar gesit, die gars bo-op die boonste sif gegooi en die deksel opgeplaas. Die gars word dan op 'n harde, gladde, effe oppervlakte gesif deur die sif 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 boonste sif. Elke heen-en-weer-beweging is een stoot, en 60 sulke stote voltooi die sifproses. Met elke stoot word die sif wat op 'n tafel of ander geskikte gladde oppervlakte moet rus, 15 tot 18 duim weg van die

back, with the sieve resting on a table or other suitable smooth surface. The speed of the stroke movement should be such that the prescribed 60 strokes are completed in 50 to 60 seconds. Barley sticking in the slots of the sieves shall not be deemed to have passed through those sieves.

When screening has been completed, the percentages of plump kernels, foreign matter and waste are determined as follows:—

(*a*) *Percentage of Plump Kernels.*—The material remaining on the top sieve and between its slots is hand-picked for foreign matter, and the barley from which the foreign matter has been so removed is weighed. The weight of the barley in grammes represents the percentage of plump kernels in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 1·0, the average of the percentage so determined shall be taken; if the said difference exceeds 1·0, the test must be repeated.

(*b*) *Percentage of Foreign Matter.*—The material remaining on the bottom sieve and between its slots is hand-picked for foreign matter. The foreign matter so removed is added to the foreign matter removed from the top sieve and the total quantity of foreign matter is then weighed. The weight of the foreign matter in grammes represents the percentage of foreign matter in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the percentage so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

NOTE.—This determination only applies in the case of barley of class A and class B.

(*c*) *Percentage of Waste.*—The material which has passed through both sieves and collected in the pan is weighed. The weight of this material in grammes represents the percentage of waste in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the precentages so determined shall be taken; if the said difference exceeds 0·5, the tset must be repeated.

(5) *Judging of Colour.*—The colour of a sample of barley shall be judged by reference to standard samples supplied by the Wheat Industry Control Board.

(6) *Determination of Percentage of Mechanically Damaged and Hull-less Barley Kernels.*—The percentage of mechanically damaged and hull-less barley is determined by hand-picking duplicate 25-gramme samples of the unrubbed barley in the pan. The weight of the mechanically damaged and hull-less barley kernels so obtained expressed as a percentage of the total weight of the sample, gives the percentage of mechanically damaged and hull-less barley in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 1·0, the average of the percentages so determined shall be taken; if the said difference exceeds 1·0, the test must be repeated.

(7) *Determination of Percentage of Dead-end and Badly Discoloured Barley Kernels.*—The percentage of dead-end and badly discoloured barley is determined by hand-picking duplicate 25-gramme samples of the unrubbed sample in the pan. The weight of the dead-end and badly discoloured kernels so obtained, expressed as a percentage of the total weight of the sample, represents the percentage of dead-end and badly discoloured barley in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 1·0, the average of the percentages so determined shall be taken; if the said difference exceeds 1·0, the test must be repeated.

hanteerder van die sif af en terug beweeg. Die snelheid van die bewegings moet sodanig wees dat die voorgeskrewe 60 stote in 50 tot 60 sekondes voltooi word. Daar word nie geag dat gars wat in die openings van die siwwe vassit, deur daardie siwwe gegaan het nie.

Wanneer die sifproses voltooi is, word die persentasies vet korrels, vreemde materiaal en sifsels as volg bepaal:—

(*a*) *Persentasie vet korrels.*—Die vreemde materiaal in die materiaal wat bo-op die boonste sif oorbly en tussen sy openings vassit, word met die hand uitgesoek, en die gars waaruit die vreemde materiaal aldus verwyder is, word geweeg. Die gewig van die gars, in gram, verteenwoordig die persentasie vet korrels in die monster. As die verskil tussen die persentasies wat ten opsigte van die duplikaatmonsters bepaal is, nie groter as 1·0 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 1·0 is, moet die toets herhaal word.

(*b*) *Persentasie vreemde materiaal.*—Die vreemde materiaal in die materiaal wat bo-op die onderste sif oorbly en tussen sy openings vassit, word met die hand uitgesoek en by die vreemde materiaal wat uit die boonste sif verwyder is, gevoeg. Die totale hoeveelheid vreemde materiaal word dan geweeg, en die gewig, in gram, verteenwoordig die persentasie vreemde materiaal in die monster. As die verskil tussen die persentasies wat ten opsigte van die duplikaatmonsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

OPMERKING.—Hierdie bepaling is net van toepassing in die geval van gars van klas A en klas B.

(*c*) *Persentasie sifsels.*—Die materiaal wat deur albei siwwe gegaan en in die pan versamel het, word geweeg. Die gewig van hierdie materiaal, in gram, verteenwoordig die persentasie sifsels in die monster. As die verskil tussen die persentasies wat ten opsigte van die duplikaatmonsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(5) *Beoordeling van kleur.*—Die kleur van 'n monster gars word beoordeel teenoor standaardmonsters wat deur die Raad van Beheer oor die Koringnywerheid verskaf word.

(6) *Bepaling van persentasie meganies beskadigde en kaalgarskorrels.*—Die persentasie meganies beskadigde en kaalgarskorrels in gars word bepaal van die ongevryfde monster in die pan deur die meganies beskadigde en kaalgarskorrels met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die meganies beskadigde en kaalgarskorrels aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie meganies beskadigde en kaalgarskorrels in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 1·0 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 1·0 is, moet die toets herhaal word.

(7) *Bepaling van persentasie swartpunt- en erg verkleurde garskorrels.*—Die persentasie swartpunt- en erg verkleurde korrels in gars word bepaal van die ongevryfde monster in die pan, deur die swartpunt- en erg verkleurde korrels met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die swartpunt- en erg verkleurde korrels aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie swartpunt- en erg verkleurde korrels in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 1·0 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 1·0 is, moet die toets herhaal word.

(8) *Determination of Percentage of Other Grain and Unthreshed Ears.*—The percentage of other grain and unthreshed ears in barley is determined by hand-picking duplicate 50-gramme samples of the unrubbed sample in the pan. The weight of other grain and unthreshed ears so obtained expressed as a percentage of the total weight of the sample, represents the percentage of other grain and unthreshed ears in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(9) *Determination of Percentage of Foreign Matter in Barley of Class C and Class D.*—The percentage of foreign matter in barley of class C and class D is determined by hand-picking duplicate 50-gramme samples of the unrubbed sample in the pan. The weight of the foreign matter so obtained, expressed as a percentage of the total weight of the sample, represents the percentage of foreign matter in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

NOTE.—If a sample contains fine sand, separation of the sand may be facilitated by the use of a suitable sieve.

(10) *Determination of Percentage of Damaged Grain.*—The percentage of damaged kernels in barley is determined by hand-picking duplicate 25-gramme samples of the unrubbed sample in the pan. The weight of the damaged barley so obtained, expressed as a percentage of the total weight of the sample, represents the percentage of damaged barley in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 0·5, the average of the two percentages so determined shall be taken; if the said difference exceeds 0·5, the test must be repeated.

(11) *Determination of Percentage of Hulled Kernels in Barley of Class D.*—The percentage of hulled kernels in barley of class D is determined by hand-picking duplicate 25-gramme samples of the unrubbed sample in the pan. The weight of the hulled kernels so obtained, expressed as a percentage of the total weight of the sample, represents the percentage of hulled kernels in the sample. If the difference between the percentages determined in respect of the two samples does not exceed 1·0, the average of the two percentages so determined shall be taken; if the said difference exceeds 1·0, the test must be repeated.

(12) *Determination of Moisture Content.*—The moisture content of barley shall be determined by the standard Brown-Duvel moisture test for barley as described below.

METHOD OF TESTING.

The apparatus is assembled in a place away from draughts. One hundred grammes of barley are introduced into the flask, and 150 c.c. of moisture testing oil added. The barley and oil must be well mixed by shaking. The opening of the flask is covered by means of a rubber stopper through which passes a standard thermometer, so adjusted that four-fifths of the mercury bulb is submerged in the barley and oil. Only correctly graduated Centigrade thermometers, specially made for this apparatus, may be used. The flask is then placed in the Brown-Duvel apparatus, and the arm of the flask is connected to the condenser tube so that it fits properly. The wire gauze with asbestos centre below the flask must be in good condition, and so adjusted that when the flask is heated, the flame plays directly in the centre of the asbestos. The stand upon which the flask rests should be of such a height that the bottom of the flask is about $\frac{3}{8}$ inch above the asbetsos. A correctly graduated

(8) *Bepaling van persentasie ander graan en ongedorste are.*—Die persentasie ander graan en ongedorste are in gars word bepaal van die ongevryfde monster in die pan deur die ander graan en ongedorste are met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die ander graan en ongedorste are aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie ander graan en ongedorste are in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(9) *Bepaling van persentasie vreemde materiaal in gars van klas C en klas D.*—Die persentasie vreemde materiaal in gars van klas C en klas D word bepaal van die ongevryfde monster in die pan, deur die vreemde materiaal met die hand uit te soek uit duplikaatmonsters van 50 gram elk. Die gewig van die vreemde materiaal aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie vreemde materiaal in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie hoër as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

OPMERKING.—As 'n monster fyn sand bevat, kan afskeiding van die sand vergemaklik word met behulp van 'n geskikte sif.

(10) *Bepaling van persentasie beskadigde gars.*—Die persentasie beskadigde korrels in gars word bepaal van die ongevryfde monster in die pan deur die beskadigde korrels met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die beskadigde gars aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie beskadigde gars in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 0·5 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 0·5 is, moet die toets herhaal word.

(11) *Bepaling van persentasie bedekte korrels in gars van klas D.*—Die persentasie bedekte korrels in gars van klas D word bepaal van die ongevryfde monster in die pan deur die bedekte korrels met die hand uit te soek uit duplikaatmonsters van 25 gram elk. Die gewig van die bedekte korrels aldus verkry, uitgedruk as 'n persentasie van die totale gewig van die monster, verteenwoordig die persentasie bedekte korrels in die monster. As die verskil tussen die persentasies wat vir die twee monsters bepaal is, nie groter as 1·0 is nie, word die gemiddelde van die persentasies wat aldus bepaal is, geneem; as genoemde verskil groter as 1·0 is, moet die toets herhaal word.

(12) *Bepaling van voggehalte.*—Die voggehalte van gars word bepaal deur die Brown-Duvel-standaardtoets vir voggehalte van gars soos hieronder beskryf.

TOETSMETODE.

Die apparaat word opgerig op 'n plek waar daar geen trek is nie. 100 gram gars word in die fles gegooi en 150 kubieke sentimeter vogtoetsolie bygevoeg. Die gars en olie word deeglik gemeng deur die fles te skud. Die opening van die fles word gesluit met 'n gomlastiekprop waardeur 'n standaardtermometer gaan wat so gestel is dat vier-vyfdes van die kwiksilwerbol in die olie en gars versink is. Slegs korrek gegradeerde Celcius-termometers, spesiaal vir die apparaat gemaak, mag gebruik word. Die fles word dan in die Brown-Duvel-apparaat geplaas, en die arm van die fles met die kondenseerbuis verbind sodat dit goed pas. Die gaasdraad met asbesmiddelstuk onder die fles moet in goeie toestand wees en so gestel word dat die vlam direk onder die middel van die asbes is terwyl die fles verhit word. Die staander waarop die fles rus, moet so hoog wees dat die bodem van die fles omtrent $\frac{3}{8}$ duim bo die asbes is. 'n Korrek gegradeerde maatglas word

measuring cylinder is placed under the condenser tube to collect the water driven off. A continuous stream of cold water should pass through the condenser tank or, if a small single-compartment Brown-Duvel outfit with no provision for a stream of water is used, the tank should be filled with cold water before each test.

The cover is then placed over the flask compartment and heating started. Heating may be brought about by electrical elements, coal-gas blow-lamps or alcohol burners (spirit lamps) as supplied for the apparatus. In all cases, however, the heat must be so regulated that the temperature of 190° C. is reached in not less than 19 minutes and not more than 21 minutes. A longer heating time gives results too low and a shorter time results too high. The heat must be cut off immediately the temperature reaches 190° C. (Normally it takes 10 minutes for the temperature to rise to about 105° to 115° C. and a further 10 minutes to rise to 190° C.)

If the moisture content of the sample is very high, foaming and bubbling over may result with the normal method of heating. Under such conditions the best way of obtaining the true moisture content is to heat rapidly until the oil bubbles, and then to apply little heat until a few cubic centimetres of water have been driven off. The heat may then be turned on to normal again and the remaining moisture driven off without foaming within the prescribed period of heating.

After the heat has been cut off, a slight gradual rise in temperature is to be expected. A sudden increase or a sudden decrease in temperature of several degrees indicates that the flame was too intense during the latter part of heating and the test must be repeated. If the water which distills over is discoloured, the barley has evidently been burnt and the test must be repeated.

Neither the cover nor the thermometer must be removed until the temperature has dropped to 160° C. After the temperature has fallen to 160° C. or lower, the cover and the thermometer are removed and then the delivery tube is disconnected.

All drops clinging to the sides of the measuring cylinder are shaken down and the percentage of moisture read off. The reading is taken beneath the layer of oil floating on the water. Results must be read to one-tenth of one per cent. All tests must be made in duplicate and if the difference between the two readings does not exceed 0·2, the average of the two readings shall be taken as the moisture content; if the said difference exceeds 0·2, the test must be repeated.

When this apparatus is used, care must be taken to avoid the use of mushy rubber stoppers, to clean and dry the measuring flasks before using for a test, not to use oil directly from a previous test, and to see that the column of mercury in the thermometer is unbroken before any test is commenced with.

Either fresh oil or oil which has not been used for some time should be used for every test, and the oil should in any case be heated to a temperature of about 200° C. and allowed to cool before use.

3. For the purpose of this Schedule—

"barley" shall mean the kernels or pieces of kernels of cultivated varieties, hulled or hull-less, of the species *Hordeum vulgare, Hordeum intermedium, Hordeum distichon* and *Hordeum dificiens*;

"other grain" shall mean the kernels or pieces of kernels of oats, rye and wheat;

"unthreshed ears" shall mean ears and bits of ears of wheat, barley, oats and rye which still contain caryopses or kernels, as the case may be;

"foreign matter" shall mean—

(*a*) in the case of barley of class A and class B, all material other than barley; and

(*b*) in the case of barley of class C and class D, all material other than barley, other grain and unthreshed ears;

onder die kondenseerbuis geplaas om die water wat afgedryf word, op te vang. 'n Onafgebroke stroom koue water moet deur die kondenseertenk loop of, as 'n klein enkelvak-Brown-Duvel-apparaat sonder voorsiening vir 'n stroom water gebruik word, moet die tenk voor elke toets met koue water gevul word.

Die deksel word dan oor die fleshouer geplaas en die verhitting begin. Verhitting kan geskied deur middel van elektrisiteit, koolgasblaaslampe of alkohollampte (spirituslampe) soos vir die apparaat verskaf word. In alle gevalle moet die hitte egter so gereël word dat die temperatuur van 190° C. in minstens 19 minute maar hoogstens 21 minute bereik word. As dit langer duur, sal die resultate te laag wees, en as dit korter duur, sal die resultate te hoog wees. Die verhitting moet dadelik stopgesit word sodra die temperatuur van 190° C. bereik word. (Gewoonlik duur dit 10 minute voordat die temperatuur styg tot omtrent 105° C.-115° C., en nog 10 minute voordat 190° C. bereik word.)

As die voggehalte van die monster besonder hoog is, kan skuim gevorm word en die inhoud oorkook as die normale metode van verhitting toegepas word. Onder sulke omstandighede kan die regte voggehalte die beste bepaal word deur die mengsel vinnig te verhit totdat opborreling van olie plaasvind, en dan min hitte te gee totdat 'n paar kubieke sentimeter water afgedryf is. Die normale verhitting kan dan weer toegepas en die orige vog sonder skuimvorming binne die voorgeskrewe tydperk deur verdamping verwyder word. Nadat die verhitting ophou, kan 'n geringe geleidelike styging in temperatuur verwag word. 'n Skielike styging of daling van verskeie grade in die temperatuur toon aan dat die vlam te warm was gedurende die laaste deel van die verhitting, en dan moet die toets herhaal word. As die water wat oorstook, verkleur is, dui dit aan dat die gars gebrand het en dan moet die toets herhaal word.

Die deksel en termometer moet nie verwyder word voordat die temperatuur tot 160° C. gedaal het nie. Wag totdat die temperatuur tot 160° C. of laer gedaal het, en verwyder dan die deksel, maak die afleweringsbuisie los, en haal die termometer uit.

Alle druppels water wat aan die kante van die maatglas hang, word neergeskud en die persentasie vog afgelees. Die lesing word geneem onder die laag olie wat bo-op die water dryf. Resultate moet afgelees word tot een-tiende van een persent. Alle toetse moet tweekeer gedoen word. As die verskil tussen die twee lesings nie groter as 0·2 is nie, word die gemiddelde van die twee lesings as die voggehalte geneem; as genoemde verskil groter as 0·2 is, moet die toets herhaal word.

By die gebruik van hierdie apparaat moet daar gesorg word dat geen voos gomlastiekproppe gebruik word nie, dat die maatglas skoon en droog gemaak word voordat dit gebruik word, dat geen olie onmiddellik na 'n vorige toets weer gebruik word nie, en dat die kwiksilwerkolom in die termometer ongebroke is voordat met 'n toets begin word.

Vir iedere toets moet òf vars olie òf olie wat vir 'n tydlank nie gebruik is nie, gebruik word; in elk geval moet die olie tot 'n temperatuur van ongeveer 200° C. verhit word en eers afkoel voordat dit gebruik word.

3. Vir die toepassing van hierdie Bylae beteken—

„gars", die korrels of stukkies korrels van die gekweekte variëteite, bedek of kaal, van die soorte *Hordeum vulgare, Hordeum intermedium, Hordeum distichon* en *Hordeum deficiens;*

„ander graan", die korrels of stukkies korrels van hawer, rog en koring;

„ongedorste are", are en gedeeltes van are van hawer, gars, koring en rog wat nog caryopses of korrels, na gelang van die geval, bevat;

„vreemde materiaal"—

(*a*) in die geval van gars van klas A en klas B, alle materiaal behalwe gars; en

(*b*) in die geval van gars van klas C en klas D, alle materiaal behalwe gars, ander graan en ongedorste are;

„skepelgewig", gewig per imperiale skepel;

" bushel weight " shall mean weight per imperial bushel;

" insects injurious to barley " shall mean the grain weevil (*Sitophilus granarius*), the rice weevil (*Sitophilus oryzae*), the Australian wheat weevil (*Rhizopertha dominica* Fab.) and the Angoumois grain moth (*Sitotroga cerealla*);

" mechanically damaged kernels " shall mean barley kernels which have been damaged in handling or threshing so that the enclosing flowering glumes have been partly or wholly removed from the kernel, or that the kernels are broken;

" dead-end kernels " shall mean barley kernels in which the colour of the germ end is dark brown to black;

" badly discoloured kernels " shall mean barley kernels in which the whole or part of the kernel has a brown to black colour, but shall not include barley kernels in which such colour is confined to the germ end;

" plump kernels " shall mean barley kernels which do not pass through the slots of the top sieve of the standard barley sieving apparatus;

" waste " shall mean all the material in a sample of barley which is sufficiently fine to pass through both sieves of the standard barley sieving apparatus;

" damaged grain " shall mean—

(*a*) barley and other grain kernels which have been damaged by insects injurious to barley; or

(*b*) sprouted barley and other grain kernels in which germination or sprouting has proceeded so far that the developing rootlets can be clearly seen; or

(*c*) moul-infected barley and other grain kernels which can be seen to be infected with mould organisms;

" smutty barley " shall mean barley which is infected with smut to such an extent that the kernels are smeared with smut, or have an unmistakable odour of stinking smut, or contain more than 6 smut masses or balls (or portions of balls equivalent to more than 6 stinking smut balls) per 100 grammes of barley;

" standard barley sieving apparatus " shall mean a hand-sieving apparatus consisting of—

(*a*) a top sieve made from 18-gauge metal, $7\frac{1}{2}$ inches long and $4\frac{1}{2}$ inches wide, with six parallel rows of slotted perforations, 25 mm. long and 2·5 mm. wide, the ribs between the slotted perforations in the same row being 2·5 mm. wide; the long axes of the perforations run parallel to the long axis of the sieve; the perforations in the different rows run in columnar and not in chess formation;

(*b*) a bottom sieve made from 18-gauge metal, $7\frac{1}{2}$ inches long and $4\frac{1}{2}$ inches wide, with six parallel rows of slotted perforations, 25 mm. long and 2 mm. wide, the ribs between the slotted perforations in the same row being 2·5 mm. wide; the long axes of the perforations run parallel to the long axis of the sieve; the perforations in the different rows run in columnar and not in chess formation;

the two sieves fit into each other and into a solid bottom pan and are covered by a lid which fits the top sieve;

" moisture-testing oil " shall mean—

(*a*) " Pan " salad and cooking oil, manufactured by Epic Oil Mills (Pty.), Limited;

(*b*) " Epic " salad and cooking oil, manufactured by Epic Oil Mills (Pty.), Limited; or

(*c*) " Consol oil " manufactured by Epic Oil Mills (Pty.), Limited;

" Wheat Industry Control Board " shall mean the Wheat Industry Control Board referred to in section 2 of the Winter Cereal Scheme published by Proclamation No. 184 of 1949, as amended.

„ insekte wat skadelik is vir gars ", die graankalander (*Sitophilus granarius*), die ryskalander (*Sitophilus oryzae*), die Australiese koringkalander (*Rhizopertha dominica* Fab.) en die Angoumois-graanmot (*Sitotroga cerealla*);

„ meganies beskadigde korrels ", garskorrels wat beskadig is toe dit gedors is of as gevolg van hantering, sodat die omsluitende blomdoppies geheel en al of gedeeltelik van die korrel verwyder is, of die korrels gebreek is;

„ swartpuntkorrels ", garskorrels waarby die kleur van die kiem-end donkerbruin tot swart is;

„ erg verkleurde korrels ", garskorrels waarby die hele korrel of 'n gedeelte van die korrel 'n bruin tot swart kleur het, met uitsluiting van garskorrels waarby sodanige kleur tot die kiem-end beperk is;

„ vet korrels ", garskorrels wat nie deur die openings van die boonste sif van die standaardgarssifapparaat gaan nie;

„ sifsels ", al die materiaal in 'n monster gars wat fyn genoeg is om deur albei siwwe van die standaardgarssifapparaat te gaan;

„ beskadigde graan "—

(*a*) gars- en ander graankorrels wat beskadig is deur insekte wat vir gars skadelik is; of

(*b*) uitgeloopte gars- en ander graankorrels waarin ontkieming of spruiting sover gevorder is dat die ontwikkelde worteltjies duidelik sigbaar is; of

(*c*) skimmelbesmette gars- en ander graankorrels waarop skimmelorganismes duidelik sigbaar is;

„ brandbesmette gars ", gars wat in so 'n mate met brand besmet is dat die korrels met brand besmeer is of 'n onmiskenbare stinkbrandreuk het of meer as ses brandmassas of -korrels (of stukkies korrels gelyk aan meer as ses stinkbrandkorrels) per 100 gram gars bevat;

„ standaardgarssifapparaat ", 'n handsifapparaat bestaande uit—

(*a*) 'n boonste sif, gemaak van metaal van dikte No. 18, $7\frac{1}{2}$ duim lank en $4\frac{1}{2}$ duim wyd, met ses parallelle rye langwerpige openings, 25 millimeter lank en 2·5 millimeter wyd; die metaal tussen die langwerpige openings in dieselfde ry is 2·5 millimeter wyd; die lang asse van die openings loop parallel met die lang as van die sif; die openings in die verskillende rye loop in suilvormige formasie en nie in skaakbordformasie nie;

(*b*) 'n onderste sif, gemaak van metaal van dikte No. 18, $7\frac{1}{2}$ duim lank en $4\frac{1}{2}$ duim wyd, met ses parallelle rye langwerpige openings, 25 millimeter lank en 2·0 millimeter wyd; die metaal tussen die langwerpige openings in dieselfde rye is 2·5 millimeter wyd; die lang asse van die openings loop parallel met die lang as van die sif; die openings in die verskillende rye loop in suilvormige formasie en nie in skaakbordformasie nie;

die twee siwwe pas inmekaar en in 'n pan met soliede bodem, en word met 'n deksel toegemaak wat op die boonste sif pas;

„ vogtoetsolie "—

(*a*) „ Pan "-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.;

(*b*) „ Epic "-slaai- en kookolie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.; of

(*c*) „ Consol "-olie, vervaardig deur die Epic Oil Mills (Pty.), Ltd.;

„ Raad van Beheer oor die Koringnywerheid ", die Raad van Beheer oor die Koringnywerheid genoem in artikel 2 van die Wintergraanskema gepubliseer by Proklamasie No. 184 van 1949, soos gewysig.

✱ No. 2110.] [15 October 1954.

WINTER CEREAL SCHEME.

GRADING OF WHEAT.—AMENDMENT.

His Excellency the Governor-General has, under the powers vested in him by section *forty-three* of the Marketing Act, 1937 (Act No. 26 of 1937), as amended, amended the regulations published under Government Notice No. 1763 of the 20th October, 1944, relating to the grading and the manner of grading of wheat according to quality, with effect from the 1st day of November, 1954—

(*a*) by the substitution for sub-regulation (1) of regulation 2 of the following sub-regulation:—

"(1) *Taking of Samples*—

(*a*) *of Wheat in Bags*—samples for the purpose of testing wheat in bags shall be obtained by the taking of small quantities of wheat from each bag by means of a grain probe, different levels in the bag being probed. Probing must in all cases be done towards the centre of the bag. If the wheat from all the bags in a lot is found to be generally of the same class and quality the samples from all the bags are thrown together into a pan. The class and grade are then determined from the sample in the pan after the wheat in the pan has been thoroughly mixed. Any bags containing wheat differing in any respect from the wheat in the other bags must be placed aside and graded separately;

(*b*) *of Wheat in Bulk*—samples for the purpose of testing wheat in bulk shall be obtained by taking small quantities from the bulk with a double-tube multiple-compartment probe of suitable length at different places scattered as widely as possible, the probe to be pushed in as deeply as possible.";

(*b*) by the substitution for method (*b*) under sub-regulation (3) of regulation 2 of the following method:—

"(*b*) *The Two-level Bushel-funnel Method.*—The standard apparatus in this method is the following:—

A 'four-in-one' scale.

A Bucket.—Internal height, 4·9 inches; diameter, 3 inches; capacity, 34·675 cubic inches, i.e. 1 pint (imperial).

A Wooden Scraper.—$\frac{1}{2}$ inch thick, 1·4 inches wide and at least 4 inches long. The edges of the scraper must be well rounded, but not worn.

A Conical Hopper—with a swing shutter at the narrow end, attached to a two-level metal base by means of an upright metal rod; the dimensions of the hopper are as follows: Vertical height, 8·9 inches; top diameter, 3·6 inches; diameter of shutter hole, 1·125 inches.

The conical hopper is attached to the upright rod by means of a metal arm fitting over and able to rotate round the upright at one end and fixed to the conical hopper at the other end. When the hopper is in position its centre line must be vertical. The higher level, which should give a clearance of 1·2 inches between the bottom rim of the hopper and the rim of the bucket, is used for testing wheat.

✱ No. 2110.] [15 Oktober 1954.

WINTERGRAANSKEMA.

GRADERING VAN KORING.—WYSIGING.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemarkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies bekendgemaak by Goewermentskennisgewing No. 1763 van 20 Oktober 1944 met betrekking tot die gradering en die manier van gradering van koring volgens kwaliteit, met ingang van die eerste dag van November 1954 gewysig—

(*a*) deur subregulasie (1) van regulasie 2 deur die volgende subregulasie te vervang:—

„(1) *Monsterneming*—

(*a*) *koring in sakke*—monsters vir die toets van koring in sakke word verkry deur klein hoeveelhede koring op verskillende hoogtes met 'n steker uit elke sak te neem. Die steker moet in alle gevalle diep in die sak ingesteek word. As daar gevind word dat die koring van al die sakke saam oor die algemeen van dieselfde klas en kwaliteit is, word die monsters van al die sakke saam in 'n pan gegooi. Die klas en graad word dan van die monster in die pan bepaal nadat die koring in die pan deeglik gemeng is. Sakke waarvan die koring in enige opsig van die koring in die ander sakke verskil, word opsy gesit en afsonderlik gegradeer;

(*b*) *koring in massa*—monsters vir die toets van koring in massa word verkry deur klein hoeveelhede met 'n dubbelbuissteker met veelvoudige afskortings en van geskikte lengte op verskillende plekke, so verspreid moontlik, uit die massa te neem; die steker moet so diep as moontlik ingesteek word.";

(*b*) deur metode (*b*) onder subregulasie (3) van regulasie 2 deur die volgende metode te vervang:—

„(*b*) *Die tweevlakskepeltregtermetode.*—Die standaardapparaat by hierdie metode is as volg:—

'n Vier-in-een-skaal.

'n Emmer.—Binnehoogte, 4·9 duim; deursnee, 3 duim; inhoud, 34·675 kubieke duim, d.w.s. een pint (imperiaal).

'n Houtskraper.—$\frac{1}{2}$ duim dik, 1·4 duim breed en minstens 4 duim lank. Die rande van die skraper moet goed gerond wees, maar nie afgeslyt nie.

'n Keëlvormige tregter—met 'n swaaiklep aan die nou end, wat deur middel van 'n regop metaalstaaf aan 'n tweevlakmetaalvoetstuk geheg is; die afmetings van die tregter is as volg: Vertikale hoogte, 8·9 duim; bo-deursnee van tregter, 3·6 duim; deursnee van klepgat, 1·125 duim.

Die keëlvormige tregter is aan die regop staaf geheg deur middel van 'n metaalarm wat aan die een end oor die regop staaf pas en daarom heen geswaai kan word en aan die ander end aan die tregter geheg is. Wanneer die tregter in posisie is, moet sy middellyn loodreg wees. Die hoogste vlak, wat 'n afstand van 1·2 duim moet laat tussen die onderste rand van die tregter en die rand van die emmer, word vir die toets van koring gebruik.

1

Method of Using Apparatus.—The entire apparatus is placed on a hard, smooth, level surface, not subject to jarring or shaking. The hopper is filled with wheat and scraped off level full. The bucket is then placed on the base of the stand so that its centre is directly below that of the hopper shutter. The bucket must rest firmly on this base. Thereupon the hopper shutter is opened wide with a quick swing, the wheat being allowed to fill the bucket and to overflow on all sides. The hopper is then swung round, away from the bucket, without disturbing the bucket in any way.

The surplus wheat is then scraped from the bucket with the standard scraper, which is held vertically. If the scraper has both a round and sharp edge, only the round edge may be used for scraping. In scraping, the scraper is placed lightly but firmly on the rim of the bucket, which is grasped gently but firmly with one hand, and the surplus wheat scraped off with one firm scrape straight across the rim of the bucket. The scraping should leave the bucket just level full of wheat. The four-in-one scale is placed on a firm level base and balanced, the wheat in the bucket poured into the pan of the four-in-one scale and weighed to determine the weight per bushel.

The bushel weight must be determined twice on each sample. If the two readings do not agree, the test must be repeated."

✱ No. 2111.] [15 October 1954.

WINTER CEREAL SCHEME.

GRADING OF WHEATEN PRODUCTS.—AMENDMENT.

His Excellency the Governor-General has, under the powers vested in him by section *forty-three* of the Marketing Act, 1937 (Act No. 26 of 1937), as amended, amended the regulations published under Government Notice No. 2377 of the 30th October, 1953, relating to the grading and the manner of grading according to quality, and the manner of packing, marking and labelling of wheaten products, with effect from the 1st day of November, 1954, by the substitution for paragraph (*a*) of sub-regulation (7) of regulation 2 of the following paragraph:—

"(*a*) milk or milk powder, wheat malt flour, barley malt flour, malt extract, animal or vegetable fats or oils, yeast, salt, sugar, vinegar or any other rope inhibitor approved of by the Department of Health, shall be regarded as normal baking ingredients, and bread which otherwise conforms to the requirements specified in paragraphs (*a*), (*b*), (*c*), (*d*), (*e*) or (*f*) of sub-regulation (6) of this regulation and in the making of which any of the said ingredients have been used shall be deemed to be white bread, brown bread, whole-wheat bread, compound bread, enriched brown bread or enriched whole-wheat bread, as the case may be; provided that in the case of enriched brown bread and enriched whole-wheat bread the quantity of any of the said ingredients which have also been prescribed in paragraph (*e*) or (*f*) shall agree with the quantity so prescribed; ".

Metode van bepaling.—Die hele apparaat word op 'n harde, effe oppervlakte geplaas wat nie gestamp of geskud kan word nie. Die tregter word met koring gevul en afgeskraap sodat hy net gelykvol is. Die emmer word nou op die voetstuk van die staander geplaas sodat sy bodem se middelpunt reg onder dié van die tregterklep is. Die emmer moet vas op die voetstuk staan. Die tregterklep word met 'n vinnige swaai oopgestoot sodat die koring die emmer vol maak en aan alle kante oorloop. Die tregter word omgeswaai, weg van die emmer af, sonder dat die emmer gestamp of gestoot word.

Die oortollige koring word dan van die emmer afgeskraap met die standaardskraper wat vertikaal op sy rand gehou word. As die skraper 'n ronde sowel as 'n skerp rand het, mag slegs die ronde rand gebruik word om mee te skraap. By die afskraap word die skraper lig maar vas op die rand van die emmer geplaas en die oortollige koring met een vaste beweging regoor die rand van die emmer heen afgeskraap sodat die emmer dan net gelyk vol koring bly. Die emmer word versigtig maar goed met die een hand vasgehou. Die vier-in-een-skaal word dan op 'n gelyke, vaste oppervlakte geplaas en in ewewig gebring. Die koring wat in die emmer is, word in die pan van die vier-in-een-skaal geplaas en geweeg ten einde die skepelgewig van die koring te bepaal.

Die skepelgewig moet twee keer met iedere monster koring bepaal word, en as die twee lesings nie ooreenstem nie, moet die toets herhaal word."

✱ No. 2111.] [15 Oktober 1954.

WINTERGRAANSKEMA.

GRADERING VAN KORINGPRODUKTE.—WYSIGING.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemarkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies bekendgemaak by Goewermentskennisgewing No. 2377 van 30 Oktober 1953 met betrekking tot die gradering en manier van gradering volgens kwaliteit, en die manier van verpakking en merk van en aanbring van etikette op koringprodukte, met ingang van 1 Novembber 1954, gewysig deur paragraaf (*a*) van subregulasie (7) van regulasie 2 deur die volgende paragraaf te vervang:—

„(*a*) word melk of melkpoeier, koringmoutmeel, garsmoutmeel, moutekstrak, diere- of plantaardige vet of -olie, gis, sout, suiker, asyn of enige ander deur die Departement van Gesondheid goedgekeurde lengbestrydingsmiddel as normale bakbestanddele beskou en word brood wat andersins voldoen aan die vereistes uiteengesit in paragrawe (*a*), (*b*), (*c*), (*d*), (*e*) of (*f*) van subregulasie (6) van hierdie regulasie en by die maak waarvan enige van die genoemde bestanddele gebruik is, geag witbrood, bruinbrood, volkoringbrood, „compound"-brood, verrykte bruinbrood of verrykte volkoringbrood te wees, na gelang van die geval; met dien verstande dat in die geval van verrykte bruinbrood en verrykte volkoringbrood die hoeveelheid van enige van die genoemde bestanddele wat ook in paragraaf (*e*) of (*f*) voorgeskryf word, met die aldus voorgeskrewe hoeveelheid moet ooreenstem; ".

✱ No. 2113.] [15 October 1954.

BEEF PRICES PAYABLE TO PRODUCERS IN CONTROLLED AREAS.

It is hereby notified that the Livestock and Meat Industries Control Board, constituted in terms of section 3 of the Livestock and Meat Control Scheme, published by Proclamation No. 265 of 1945, as amended, has under the powers vested in it by section 14 of the said Scheme, decided that it will, during the period stated in the Schedule hereto, in any controlled area specified in the said Schedule, buy cattle carcases derived from cattle received at any abattoir in such controlled area in accordance with the provision of a permit issued by the Board in the case of—

(*a*) any sound carcase, at a price calculated in accordance with a rate specified in the said Schedule;

(*b*) any detained carcase, at a price calculated at a rate fifteen per cent less than the rate specified in the said Schedule;

in respect of that controlled area for a carcase of the class or grade specified in that Schedule, in respect of the period during which the animal from which the carcase is derived, is so received; provided that if an animal is not slaughtered during the week in which it is received as aforesaid and the rate for calculating the price specified in respect of the week during which the animal is slaughtered, is higher than the rate specified in respect of the week during which the animal was so received, the Board will pay a price calculated at the rate specified in respect of the week during which the animal is slaughtered, unless the slaughtering was deferred at the instance or request of the owner of the animal or his agent.

For the purpose of the aforesaid decision—

" controlled area ", shall mean any area specified in the Schedule to Proclamation No. 138 of 1953;

" detained carcase " and " sound carcase " shall have the meaning thereto assigned in clause 1 of the Schedule to Government Notice No. 1304 of 1953, as amended.

Government Notice No. 1967 of 1954 is hereby repealed.

✱ No. 2113.] [15 Oktober 1954.

BEESVLEISPRYSE IN BEHEERDE GEBIEDE BETAALBAAR AAN PRODUSENTE.

Hierby word bekendgemaak dat die Raad van Beheer oor die Vee- en Vleisnywerhede, saamgestel kragtens artikel 3 van die Vee- en Vleisreëlingskema, bekendgemaak by Proklamasie No. 265 van 1945, soos gewysig, ingevolge die bevoegdheid aan hom verleen kragtens artikel 14 van genoemde Skema, besluit het dat hy gedurende die tydperke in die Bylae hiervan genoem, en binne die beheerde gebiede in genoemde Bylae gespesifiseer, beeskarkasse afkomstig van vee wat ooreenkomstig die bepalings van 'n permit deur die Raad uitgereik by enige abattoir in so 'n beheerde gebied ontvang word, sal koop, in die geval van—

(*a*) enige gesonde karkas, teen 'n prys bereken ooreenkomstig die tarief soos in die genoemde Bylae gespesifiseer;

(*b*) enige teruggehoue karkas, teen 'n prys bereken op 'n basis van vyftien persent minder as die tarief in die genoemde Bylae gespesifiseer;

ten opsigte van die betrokke beheerde gebied vir 'n karkas van die klas of graad soos in die Bylae gespesifiseer, met betrekking tot die tydperk waarin die dier, waarvan die karkas afkomstig is, aldus ontvang word; met dien verstande dat indien 'n dier nie geslag word gedurende die week waarin dit ontvang word, soos voornoem, en die tarief vir die berekening van die prys gespesifiseer ten opsigte van die week waarin die dier geslag word, hoër is as die tarief gespesifiseer ten opsigte van die week waarin die dier aldus ontvang was, die Raad 'n prys sal betaal bereken teen die tarief gespesifiseer ten opsigte van die week waarin die dier geslag word, tensy die slag daarvan op aandrang of versoek van die eienaar van die dier of sy agent uitgestel was.

Vir die doel van voornoemde besluit beteken—

„beheerde gebied ", 'n gebied in die Bylae van Proklamasie No. 138 van 1953 gespesifiseer; en het

„ teruggehoue karkas " en „ gesonde karkas " die betekenis in klousule 1 van Goewermentskennisgewing No. 1304 van 1953, soos gewysig, daaraan geheg.

Goewermentskennisgewing No. 1967 van 1954 word hiermee herroep.

SCHEDULE.—*BYLAE.*

RATES FOR CALCULATING THE PRODUCERS' PRICES FOR BEEF IN CONTROLLED CENTRES.
TARIEWE VIR DIE BEREKENING VAN DIE PRODUSENTEPRYSE VAN BEESVLEIS IN BEHEERDE GEBIEDE.

PER 100 LB. DRESSED CARCASE WEIGHT.
PER 100 LB. GEDRESSEERDE KARKASGEWIG.

Period/*Tydperk.*		Super.			Prime/*Prima.*			Grade/*Graad.*				
From. *Vanaf.*	To. *Tot.*	A.	B.	C.	A.	B.	C.	1.	2.	3.	4.	5.
WITWATERSRAND.												
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
26/9/54	U.F.N./ *T.N.K.**	145 0	130 0	116 0	133 0	118 0	104 0	97 0	88 6	81 6	75 3	55 0
CAPE TOWN/KAAPSTAD.												
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
10/10/54	16/10/54	141 0	126 0	113 3	129 0	114 0	101 3	93 9	85 6	78 0	71 9	50 0
17/10/54	23/10/54	141 0	126 0	114 0	129 0	114 0	102 0	94 6	86 0	78 6	72 3	50 0
24/10/54	U.F.N./ *T.N.K.**	141 0	126 0	114 0	129 0	114 0	102 0	95 3	86 6	79 0	72 9	50 0
DURBAN AND/EN PIETERMARITZBURG.												
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
26/9/54	U.F.N./ *T.N.K.**	148 0	133 0	119 0	136 0	121 0	107 0	100 0	91 6	84 6	78 3	58 0

Period/*Tydperk.*		Super.			Prime/*Prima.*			Grade/*Graad.*				
From. *Vanaf.*	To. *Tot.*	A.	B.	C.	A.	B.	C.	1.	2.	3.	4.	5.
					PRETORIA.							
26/9/54	U.F.N./ *T.N.K.**	146 6	131 6	117 6	134 6	119 6	105 6	98 6	90 0	83 0	76 9	56 6
					PORT ELIZABETH.							
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
10/10/54	16/10/54	142 6	127 6	114 9	130 6	115 6	102 9	95 3	87 0	79 6	73 3	51 6
17/10/54	23/10/54	142 6	127 6	115 6	130 6	115 6	103 6	96 0	87 6	80 0	73 9	51 6
24/10/54	U.F.N./ *T.N.K.**	142 6	127 6	115 6	130 6	115 6	103 6	96 9	88 0	80 6	74 3	51 6
					EAST LONDON/OOS-LONDEN.							
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
10/10/54	16/10/54	138 0	123 0	110 3	126 0	111 0	98 3	90 9	82 6	75 0	68 9	47 0
17/10/54	23/10/54	138 0	123 0	111 0	126 0	111 0	99 0	91 6	83 0	75 6	69 3	47 0
24/10/54	U.F.N./ *T.N.K.**	138 0	123 0	111 0	126 0	111 0	99 0	92 3	83 6	76 0	69 9	47 0
					BLOEMFONTEIN.							
10/10/54	16/10/54	137 6	122 6	109 9	125 6	110 6	97 9	90 3	82 0	74 6	68 3	46 6
17/10/54	23/10/54	137 6	122 6	110 6	125 6	110 6	98 6	91 0	82 6	75 0	68 9	46 6
24/10/54	U.F.N./ *T.N.K.**	137 6	122 6	110 6	125 6	110 6	98 6	91 9	83 0	75 6	69 3	46 6
					KIMBERLEY.							
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
10/10/54	16/10/54	137 0	122 0	109 3	125 0	110 0	97 3	89 9	81 6	74 0	67 9	46 0
17/10/54	23/10/54	137 0	122 0	110 0	125 0	110 0	98 0	90 6	82 0	74 6	68 3	46 0
24/10/54	U.F.N./ *T.N.K.**	137 0	122 0	110 0	125 0	110 0	98 0	91 3	82 6	75 0	68 9	46 0

* Until further notice.—*Tot nadere kennisgewing.*