



UNION OF SOUTH AFRICA
UNIE VAN SUID-AFRIKA

EXTRAORDINARY BUITENGEWONE
Government Gazette
Staatskoerant

(Registered at the Post Office as a Newspaper)

(As 'n Nuusblad by die Poskantoor Geregistreer)

VOL. CLXXX.]

PRICE 6d.

PRETORIA,

6 MAY 1955.
6 MEI

PRYS 6d.

[No. 5462.

All Proclamations, Government and General Notices published for the first time, are indicated by a * in the left-hand upper corner.

Alle Proklamasies, Goewerments- en Algemene Kennisgewings, wat vir die eerste maal gepubliseer word, is in die linker-bohoek met 'n * gemerk.

GOVERNMENT NOTICE.

The following Government Notice is published for general information:—

DEPARTMENT OF AGRICULTURE.

* No. 957.] [6 May 1955.
GRADES AND THE MANNER OF GRADING
ACCORDING TO QUALITY OF PRODUCERS'
UNSHELLED AND SHELLED GROUNDNUTS
AND SHELLED GROUNDNUTS INTENDED
FOR OIL EXPRESSING PURPOSES.

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 out in the Annexure hereto prescribing grades and the manner of grading according to quality of a regulated product, viz., groundnuts, in substitution for the regulations published under Government Notice No. 1085 of 1954.

ANNEXURE.

PART I.

DEFINITIONS.

In these regulations, unless inconsistent with the context, the expression—

- (i) "blackened groundnuts" means groundnuts, the shells of which are mouldy or blackened over more than half their surface: (xiv)
- (ii) "broken and open groundnuts" means groundnuts of which the shells have been broken or which are open in any way: (ii)
- (iii) "chips" means the smaller parts of groundnut kernels which pass through the $\frac{1}{4}$ -inch round-hole screen: (xiii)
- (iv) "Class A groundnuts" means groundnuts of the Virginia Bunch type containing not more than 3 per cent of any other type of groundnut: (v)
- (v) "Class B groundnuts" means groundnuts of the Natal Common type containing not more than 3 per cent of any other type of groundnut: (vi)
- (vi) "Class C groundnuts" means groundnuts of the Virginia Bunch, Natal Common, or Egyptian Giant types or any other type of groundnut which do not conform to the requirements prescribed for Classes A, B and D groundnuts: (vii)
- (vii) "Class D groundnuts" means groundnuts of the brown long-kernelled Egyptian Giant type containing not more than 5 per cent of any other type of groundnuts: (viii)

GOEWERMENTSKENNISGEWING.

Onderstaande Goewermentskennisgewing word vir algemene inligting gepubliseer:—

DEPARTEMENT VAN LANDBOU.

* No. 957.] [6 Mei 1955.
GRADE EN MANIER VAN GRADERING, VOL-
GENS KWALITEIT, VAN PRODUSENTE SE
ONGEDOPTE EN GEDOPTE GRONDBOON-
TJIES EN GEDOPTE GRONDBOONTJIES WAT
VIR OLIEPERSDOELEINDES BESTEM IS.

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 gemaak wat in die Bylae hiervan uiteengesit word en waarin grade en die manier van gradering volgens kwaliteit vir die beheerde produk, grondbootjies, voorgeskryf word, ter vervanging van die regulasies gepubliseer by Goewermentskennisgewing No. 1085 van 1954.

BYLAE.

DEEL I.

WOORDOMSKRYWING.

Tensy dit in stryd is met die samehang, beteken in hierdie regulasie—

- (i) „ander tipe”, met betrekking tot enige monster grondbootjies, enige ander tipe as die tipe van die klas waaruit daardie monster hoofsaaklik bestaan: (xii)
- (ii) „gebreekte en oop grondbootjies”, grondbootjies waarvan die doppe gebreek of op enige wyse oop is: (ii)
- (iii) „gesplete pitte”, grondbootjiepitte waarvan die saadhuud oor meer as die helfte van die oppervlakte van die pitte afgekom het en die afsonderlike helftes of kleiner gedeeltes van grondbootjiepitte, wat nie deur die $\frac{1}{4}$ -duim-rondegatsif gaan nie: (xiii)
- (iv) „grondbootjies”, die vrugte van *Arachis hypogaea*: (ix)
- (v) „grondbootjies, klas A,” grondbootjies van die Virginia Bunch-tipe wat nie meer as 3 persent van enige ander tipe grondbootjie bevat nie: (iv)
- (vi) „grondbootjies, klas B,” grondbootjies van die Natal Common-tipe wat nie meer as 3 persent van enige ander tipe grondbootjie bevat nie: (v)
- (vii) „grondbootjies, klas C,” grondbootjies van die Virginia Bunch-, Natal Common- of Egyptian Giant-tipe, of enige ander tipe grondbootjie wat nie voldoen aan die vereistes gestel vir grondbootjies van klasse A, B en D nie: (vi)

- (viii) "foreign matter" means stems, roots, shells, clods or any material other than groundnuts; (xv)
- (ix) "groundnuts" means the fruits of *Arachis hypogaea*; (iv)
- (x) "insects" means the grain weevil (*Sitophilus granarius* Linn.), the rice weevil (*Sitophilus oryzae* Linn.), the Angoumois grain moth (*Sitotroga cerealella* Oliv.), the Mediterranean meal moth (*Ephistia kuehniella* Zell.), or the Indian meal moth (*Plodia interpunctella*); (ix)
- (xi) "kernels" means the seeds of groundnuts; (xii)
- (xii) "other type" in relation to any sample of groundnuts, means any type other than the type of the class of which that sample mainly consists; (i)
- (xiii) "split kernels" means groundnut kernels of which the testa has split off over more than half their surface and the separated halves of groundnut kernels or parts thereof, which do not pass thorough the $\frac{1}{4}$ -inch round-hole screen; (iii)
- (xiv) "unshelled groundnuts" means groundnuts or parts of groundnuts containing kernels; (x)
- (xv) "unsound" means rancid, decayed or mouldy in any respect, damaged by heat or fungi or insects or sprouted or showing yellow discoloration when the testa is removed; provided that groundnuts of the Natal Common type showing purplish anthocyanic blotches in or on the testa shall not be regarded as unsound; (xi)
- (xvi) " $\frac{3}{4}$ -inch by $\frac{19}{64}$ -inch screen" means a hand-screen 16 inches by 9 inches having $\frac{3}{4}$ -inch by $\frac{19}{64}$ -inch slotted perforations; (xvi)
- (xvii) " $\frac{3}{4}$ -inch by $\frac{19}{64}$ -inch screen" means a hand-screen 16 inches by 9 inches having $\frac{3}{4}$ -inch by $\frac{19}{64}$ -inch slotted perforations; (xvii)
- (xviii) " $\frac{1}{4}$ -inch round-hole screen" means a hand-screen 16 inches by 9 inches with round perforations $\frac{1}{4}$ -inch in diameter; (xviii)
- (xix) " $\frac{17}{64}$ -inch screen" means a hand-screen 16 inches by 9 inches with round perforations $\frac{17}{64}$ -inch in diameter; (xix)
- (xx) " $\frac{23}{64}$ -inch screen" means a hand-screen 16 inches by 9 inches with round perforations $\frac{23}{64}$ -inch in diameter; (xx) and
- (xxi) "4, 3, 2 and 1 kernelled groundnuts" means groundnuts which according to the formation of their shells apparently contain 4, 3, 2 and single kernels. (xxi)

PART II.

GRADES AND MANNER OF GRADING OF PRODUCERS' UNSHELLED GROUNDNUTS.

1. Unshelled groundnuts of Classes A, B, C and D shall, subject to the provisions of regulation 2 hereof, be graded in accordance with the requirements specified for the respective grades in the following tables:—

TABLE I.

(a) For the grading of unshelled groundnuts of Class A.

Grade No.	Minimum Percentage by Weight of Sound Whole and Split Kernels required above the $\frac{3}{4}$ × $\frac{19}{64}$ Screen and Sound Split Kernels above the $\frac{1}{4}$ Round-hole Screen.	Maximum Percentage by Weight Allowed of—			
		Unsound Whole and Split Kernels.	Blackened Groundnuts.	Broken and Open Groundnuts.	Shelled Kernels.
1.....	90	3	5	10	2
2.....	80	5	10	15	3
3.....	65	10	20	25	5

- (viii) „grondboontjies, klas D,” grondboontjies van die bruin Egyptian Giant-tipe met langwerpige pitte wat nie meer as 5 persent van enige ander tipe grondboontjie bevat nie; (vii)
- (ix) „insekte”, die graankalander (*Sitophilus granarius* Linn.), die ryskalander (*Sitophilus oryzae* Linn.), die Franse koringmot (*Sitotroga cerealella* Oliv.), die Mediterreense meelmot (*Ephistia kuehniella* Zell.), of die Indiese meelmot (*Plodia interpunctella*); (x)
- (x) „ongedopte grondboontjies”, grondboontjies of gedeeltes van grondboontjies wat pitte bevat; (xiv)
- (xi) „ongesond”, galsterig, bederf of muf in enige opsig, deur hitte of swamme of insekte beskadig of uitloop of wat geel verkleuring toon wanneer die saadhuid verwyder word; met dien verstande dat waar grondboontjies van die Natal Common-tipe persagtige antosionienvlekke in- of op die saadhuid het, sodanige grondboontjies nie as ongesond beskou word nie; (xv)
- (xii) „pitte”, die saad van grondboontjies; (xi)
- (xiii) „stukies”, die kleinere gedeeltes van grondboontjiepitte wat deur die $\frac{1}{4}$ -duim-rondegatsif gaan; (iii)
- (xiv) „swartgeklepte grondboontjies”, grondboontjies waarvan die doppe oor meer as die helfte van die oppervlakte daarvan skimmel of swart gevlek is; (i)
- (xv) „vreemde voorwerpe”, stingels, wortels, doppe, grond of enige ander voorwerpe as grondboontjies; (viii)
- (xvi) „ $\frac{3}{4}$ duim by $\frac{19}{64}$ duim-gleufsif”, 'n handsif, 16 duim by 9 duim groot, met gleuwe van $\frac{3}{4}$ duim by $\frac{19}{64}$ duim; (xvi)
- (xvii) „ $\frac{3}{4}$ duim by $\frac{19}{64}$ duim-gleufsif”, 'n handsif, 16 duim by 9 duim groot, met gleuwe van $\frac{3}{4}$ duim by $\frac{19}{64}$ duim; (xvii)
- (xviii) „ $\frac{1}{4}$ duim-rondegatsif”, 'n handsif, 16 duim by 9 duim groot, met ronde gate $\frac{1}{4}$ duim in deursnee; (xviii)
- (xix) „ $\frac{17}{64}$ duim-rondegatsif”, 'n handsif, 16 duim by 9 duim groot, met ronde gate $\frac{17}{64}$ duim in deursnee; (xix)
- (xx) „ $\frac{23}{64}$ duim-rondegatsif”, 'n handsif, 16 duim by 9 duim groot, met ronde gate $\frac{23}{64}$ duim in deursnee; (xx) en
- (xxi) „4-, 3-, 2- en 1-pitgrondboontjies”, grondboontjies wat blykbaar volgens hul dopformasie 4, 3, 2 en enkele pitte bevat. (xxi).

DEEL II.

GRADE EN MANIERE VAN GRADERING VAN PRODUSENTE SE ONGEDOPTTE GRONDBOONTJIES.

1. Ongedopte grondboontjies van klasse A, B, C en D word behoudens die bepalings van regulasie 2 hiervan, gegradeer ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabelle genoem.

TABEL I.

(a) Vir die gradering van ongedopte grondboontjies van klas A.

Graad No.	Minimum persentasie per gewig van gesonde heel en gesplete pitte vereis bo die $\frac{3}{4}$ " $\times$ $\frac{1\frac{1}{2}}{4}$ "-sif en gesonde gesplete pitte bo die $\frac{1\frac{1}{2}}{4}$ "-rondegatsif.	Maksimum persentasie per gewig toegelaat van—			
		Ongesonde heel en gesplete pitte.	Swartgeklepte grondboontjies.	Gebreekte en oop grondboontjies.	Uitgedopte pitte.
1.....	90	3	5	10	2
2.....	80	5	10	15	3
3.....	65	10	20	25	5

TABLE II.

(b) For the grading of unshelled groundnuts of Classes B and C.

TABEL II.

(b) Vir die gradering van ongedopte grondboontjies van klasse B en C.

Grade No.	Minimum Percentage by Weight of Sound Whole and Split Kernels required above the $\frac{3}{4}$ " $\times$ $\frac{1\frac{1}{2}}{4}$ " Screen and Sound Split Kernels above the $\frac{1\frac{1}{2}}{4}$ " Round-hole Screen.	Maximum Percentage by Weight Allowed of—			
		Unsound Whole and Split Kernels.	Blackened Groundnuts.	Broken and Open Groundnuts.	Shelled Kernels.
1.....	90	3	15	10	2
2.....	80	5	20	15	3
3.....	65	10	30	25	5

Graad No.	Minimum persentasie per gewig van gesonde heel en gesplete pitte vereis bo die $\frac{3}{4}$ " $\times$ $\frac{1\frac{1}{2}}{4}$ "-sif en gesonde gesplete pitte bo die $\frac{1\frac{1}{2}}{4}$ "-rondegatsif.	Maksimum persentasie per gewig toegelaat van—			
		Ongesonde heel en gesplete pitte.	Swartgeklepte grondboontjies.	Gebreekte en oop grondboontjies.	Uitgedopte pitte.
1.....	90	3	15	10	2
2.....	80	5	20	15	3
3.....	65	10	30	25	5

TABLE III.

(c) For the grading of unshelled groundnuts of Class D.

TABEL III.

(c) Vir die gradering van ongedopte grondboontjies van klas. D.

Grade No.	Minimum Percentage by Weight of Sound Whole and Split Kernels required above the $\frac{3}{4}$ " $\times$ $\frac{1\frac{1}{2}}{4}$ " Screen and Sound Split Kernels above the $\frac{3}{4}$ " Round-hole Screen.	Maximum Percentage by Weight Allowed of—			
		Unsound Whole and Split Kernels.	Blackened Groundnuts.	Broken and Open Groundnuts.	Shelled Kernels.
1.....	60	3	20	15	3
2.....	50	5	30	25	5

Graad No.	Minimum persentasie per gewig van gesonde heel en gesplete pitte vereis bo die $\frac{3}{4}$ " $\times$ $\frac{1\frac{1}{2}}{4}$ "-sif en gesonde gesplete pitte bo die $\frac{3}{4}$ "-rondegatsif.	Maksimum persentasie per gewig toegelaat van—			
		Ongesonde heel en gesplete pitte.	Swartgeklepte grondboontjies.	Gebreekte en oop grondboontjies.	Uitgedopte pitte.
1.....	60	3	20	15	3
2.....	50	5	30	25	5

(d) Unshelled groundnuts conforming to the requirements of the grades provided for in regulations 1 (a), 1 (b) and 1 (c) hereof, but which contain more than 10 per cent by weight of kernels of which the testa split off readily, shall not be placed in one or other of those grades but shall be sun-dried groundnuts.

2. Any unshelled groundnuts which do not conform to the requirements for one or other of the grades set out in regulation 1 above, or which—

- (i) contain more than 3 per cent by weight of foreign matter; or
 - (ii) contain more than 7 per cent of moisture; or
 - (iii) contain live insects,
- shall be undergrade.

(d) Ongedopte grondboontjies wat aan die vereistes van die grade van regulasies 1 (a), 1 (b) en 1 (c) hiervan voldoen, maar wat per gewig meer as 10 persent pitte bevat waarvan die saadhuid maklik afkom, word nie in die een of ander van daardie grade geplaas nie, maar is songedroogde grondboontjies.

2. Enige ongedopte grondboontjies wat nie voldoen aan die vereistes vir die een of ander van die grade in regulasie 1 hierbo genoem nie, of wat—

- (i) meer as 3 persent per gewig vreemde voorwerpe bevat; of
 - (ii) meer as 7 persent vog bevat; of
 - (iii) lewende insekte bevat,
- is ondergraad.

3. To determine the grades of unshelled groundnuts as specified in regulation 1 above in any particular consignment, the following methods should be followed:—

- (a) *Taking of Samples.*—Samples of not less than 20 lb. shall be obtained by taking more or less equal quantities of groundnuts from at least 5 per cent of the total number of bags in a consignment, and by mixing together all the quantities so taken from bags containing groundnuts found to be generally of the same quality. Any bags differing in any respect from the others shall be placed aside and graded separately.
- (b) *Determining the Percentage of Foreign Matter.*—The percentage of foreign matter in unshelled groundnuts shall be determined from a sample of at least 20 lb. obtained by taking more or less equal quantities from at least 5 per cent of the total number of bags in any consignment and by mixing together all the quantities so taken from bags containing groundnuts, found to be generally of the same quality, and by screening and/or hand-picking the sample so obtained.
- (c) *Determining the Percentage of Blackened Groundnuts.*—The percentage of blackened groundnuts shall be determined by hand-picking 400 grammes of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (d) *Determining the Percentage of Broken and Open Groundnuts.*—The percentage of broken and open groundnuts shall be determined by hand-picking 400 grammes of unshelled groundnuts obtained in the manner prescribed in regulation 3 (a) above.
- (e) *Determining the Percentage of Shelled Kernels in Unshelled Groundnuts.*—The percentage of shelled kernels shall be determined by hand-picking 400 grammes of unshelled groundnuts and shelled kernels obtained in the manner indicated in regulation 3 (a) above.
- (f) *Shelling of Sample.*—At least 3 lb. of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above shall be shelled and winnowed in order to separate the kernels from the shells.
- (g) *Determining the Percentage of Unsound Whole and Split Kernels.*—The percentage of unsound whole and split kernels shall be determined by hand-picking 100 grammes of shelled kernels obtained in the manner indicated in regulation 3 (f) above.
- (h) *Determining the Percentage of Sound Whole and Split Kernels.*—The percentage of sound whole and split kernels shall be determined by screening the kernels after the removal of the unsound whole and split kernels over the screens prescribed for the different classes of groundnuts. The screens shall be moved to-and-fro over ± 18 inches in the direction of the length of the slots of the slotted screen for 40 strokes per 40 seconds. Each to-and-fro movement constitutes a stroke.
- (i) *Determining the Percentage of Kernels of which the Testa split off Readily.*—The percentage of kernels of which the testa split off readily shall be determined by rubbing 100 grammes of shelled kernels obtained in the manner indicated in regulation 3 (f) above with the hands and by hand-picking the kernels of which the testa have split off.
- (j) *Determining the Percentage of Moisture.*—The percentage of moisture in unshelled groundnuts shall be determined by shelling groundnuts in the manner indicated in regulation 3 (f) above and determining the moisture in the kernels so obtained by the Brown-Duvel method as described in Part IV hereof.

3. By die bepaling van die grade van ongedopte grondboontjies soos in regulasie 1 hierbo genoem, in enige besondere besending, moet die volgende metodes gevolg word:—

- (a) *Neem van monsters.*—Monsters van minstens 20 lb. word verkry deur min of meer gelyke hoeveelhede grondboontjies uit minstens 5 persent van die totale aantal sakke in 'n besending te haal en al die hoeveelhede aldus verkry uit sakke met grondboontjies wat oor die algemeen van dieselfde kwaliteit is, met mekaar te meng. Enige sakke waarvan die grondboontjies in enige opsig van dié van die res verskil, moet opsy gesit en afsonderlik gegradeer word.
- (b) *Bepaling van die persentasie vreemde voorwerpe.*—Die persentasie vreemde voorwerpe in ongedopte grondboontjies word bepaal volgens 'n monster van minstens 20 pond wat verkry word deur min of meer gelyke hoeveelhede uit minstens 5 persent van die totale aantal sakke in enige besending grondboontjies te haal, en al die hoeveelhede aldus verkry uit sakke met grondboontjies wat oor die algemeen van dieselfde kwaliteit is, met mekaar te meng, en die monster aldus verkry, te sif en/of met die hand uit te soek.
- (c) *Bepaling van die persentasie swartgeklepte grondboontjies.*—Die persentasie swartgeklepte grondboontjies word bepaal deur 400 gram ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (d) *Bepaling van die persentasie gebreekte en oop grondboontjies.*—Die persentasie gebreekte en oop grondboontjies word bepaal deur 400 gram ongedopte grondboontjies verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (e) *Bepaling van die persentasie uitgedopte pitte in ongedopte grondboontjies.*—Die persentasie uitgedopte pitte word bepaal deur 400 gram ongedopte grondboontjies en uitgedopte pitte, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (f) *Uitdop van monster.*—Minstens 3 lb. ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, moet uitgedop en uitgewan word om die pitte van die doppe te skei.
- (g) *Bepaling van die persentasie ongesonde heel en gesplete pitte.*—Die persentasie ongesonde heel en gesplete pitte word bepaal deur 100 gram uitgedopte pitte, verkry op die wyse in regulasie 3 (f) hierbo beskryf, met die hand uit te soek.
- (h) *Bepaling van die persentasie gesonde heel en gesplete pitte.*—Die persentasie gesonde heel en gesplete pitte word bepaal deur die oorblywende pitte, nadat die ongesonde heel en gesplete pitte verwyder is, te sif met die siwwe voorgeskryf vir die onderskeie klasse grondboontjies. Die siwwe moet 40 stote per 40 sekondes oor ± 18 duim heen-en-weer in die rigting van die lengte van die gleuwe van die gleuf-sif gestoot word. Elke heen-en-weer beweging is een stoot.
- (i) *Bepaling van die persentasie pitte waarvan die saadhuid maklik afkom.*—Die persentasie pitte waarvan die saadhuid maklik afkom, word bepaal deur 100 gram uitgedopte pitte, verkry op die wyse in regulasie 3 (f) hierbo beskryf, met die hand te vryf en die pitte waarvan die saadhuid afgekom het, met die hand uit te soek.
- (j) *Bepaling van die persentasie vog.*—Die persentasie vog in ongedopte grondboontjies word bepaal deur grondboontjies uit te dop op die wyse in regulasie 3 (f) hierbo beskryf en die voggehalte van die pitte aldus verkry, te bepaal met behulp van die Brown-Duvel-metode soos in deel IV hiervan beskryf.

PART III.

GRADES AND MANNER OF GRADING OF PRODUCERS' SHELLED GROUNDNUTS AND SHELLED GROUNDNUTS INTENDED FOR OIL-EXPRESSING PURPOSES.

1. Shelled groundnuts of the Classes A, B, C and D shall, subject to the provisions of regulation 2 hereof, be graded in accordance with the requirements specified for the respective grades in the following table:—

TABLE.

Grade No.	Minimum Percentage of Kernels required above the $\frac{3}{4}$ " $\times$ $\frac{1}{8}$ " Screen.	Minimum Percentage of Kernels required above the $\frac{3}{4}$ " $\times$ $\frac{1}{8}$ " Screen.	Maximum Percentage by Weight Allowed of—				
			Kernels and Chips below $\frac{1}{4}$ " Round-hole Screen.	Unshelled Groundnuts.	Unsound Chips, Splits and Whole Kernels.	Split Kernels.	Foreign Matter.
S1.....	25	70	5.0	1.5	3.0	7.0	1.0
S2.....	—	60	7.5	2.5	4.0	15.0	2.0
S3.....	—	—	12.5	3.0	10.0	—	2.5
S4.....	—	—	40.0	5.0	20.0	—	3.0

DEEL III.

GRADE EN MANIER VAN GRADERING VAN PRODUSENTE SE GEDOPTTE GRONDBOONTJIES EN GEDOPTTE GRONDBOONTJIES WAT VIR OLIE-PERSDOELEINDES BESTEM IS.

1. Gedopte grondboontjies van klasse A, B, C en D word, behoudens die bepaling van regulasie 2 hiervan, gegradeer ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabel genoem:—

TABEL.

Graad No.	Minimum persentasie pitte bo die $\frac{3}{4}$ " $\times$ $\frac{1}{8}$ " gleufsif vereis.	Minimum persentasie pitte bo die $\frac{3}{4}$ " $\times$ $\frac{1}{8}$ " gleufsif vereis.	Maksimum persentasie per gewig toegelaat van—				
			Pitte en stukkies onder die $\frac{1}{4}$ "-rondegatsif.	Ongedopte grondboontjies.	Ongesonde stukkies gesplete pitte en heelpitte.	Gesplete pitte.	Vreemde voorwerpe.
S1.....	25	70	5.0	1.5	3.0	7.0	1.0
S2.....	—	60	7.5	2.5	4.0	15.0	2.0
S3.....	—	—	12.5	3.0	10.0	—	2.5
S4.....	—	—	40.0	5.0	20.0	—	3.0

2. Shelled groundnuts which do not conform to the requirements for one or other of the grades set out in regulation 1 above or which—

- have a musty, mouldy, sour or any other objectionable odour; or
 - have been treated with any chemical and thereby or otherwise rendered unsuitable for the processing therefrom of sound food or feed; or
 - contain more than 7 per cent of moisture; or
 - contain live insects,
- shall be undergrade.

3. To determine the grades of shelled groundnuts as specified in regulation 1 above, the following methods shall be followed:—

- Taking of Samples.**—Samples for the testing of shelled groundnuts shall be obtained by taking small more or less equal quantities by hand and/or by means of a grain probe from the bags to be graded. When the sample is taken by hand the grader shall open not less than five per cent of the bags taken at random from all the bags in a consignment. If the kernels from all the bags in a consignment are found to be generally of the same class and quality, the samples from all the bags shall be thrown together into a pan. The grade and class are determined from the composite sample obtained after the kernels have been thoroughly mixed. Any bags differing in any respect from the other shall be placed aside and graded separately.
- Manner of Grading Samples.**—100 grammes of the kernels obtained as prescribed in regulation 3 (a) shall be hand-picked or separated by means of screens, into—
 - foreign matter;
 - unshelled groundnuts;
 - splits;
 - kernels above the $\frac{3}{4}$ -inch by $\frac{1}{8}$ -inch screen;
 - kernels above the $\frac{3}{4}$ -inch by $\frac{1}{8}$ -inch screen;
 - kernels and chips below the $\frac{1}{4}$ -inch roundhole screen; and
 - unsound chips, splits and whole kernels.

2. Gedopte grondboontjies wat nie voldoen aan die vereistes vir die een of ander van die grade in regulasie 1 hierbo genoem nie, of wat—

- 'n muwwe, skimmel, suur of enige ander onaangename reuk het; of
 - met enige chemiese stof behandel en sodoende of op 'n ander wyse ongeskik gemaak is sodat dit nie tot gesonde voedsel vir mens en dier verwerk kan word nie; of
 - meer as 7 persent vog bevat; of
 - lewende insekte bevat,
- is ondergraad.

3. By die bepaling van die grade van gedopte grondboontjies, soos in regulasie 1 hierbo genoem, moet die volgende metodes gevolg word:—

- Neem van monsters.**—Monsters vir die toets van gedopte grondboontjies word verkry deur klein, min of meer gelyke hoeveelhede met die hand en/of 'n steker uit te haal uit die sakke wat gegradeer moet word. Wanneer die monster met die hand geneem word moet die gradeerder minstens vyf persent van die sakke na willekeur uit al die sakke in 'n besending geneem, oopmaak. Indien gevind word dat die pitte uit al die sakke in 'n besending oor die algemeen van dieselfde klas en kwaliteit is, moet die monsters uit al die sakke saam in 'n pan gegooi word. Die graad en klas word bepaal uit die saamgevoegde monster wat verkry word nadat die pitte deeglik gemeng is. Enige sakke waarvan die grondboontjies in enige opsig van dié van die res verskil, moet opsy gesit en afsonderlik gegradeer word.
- Hoe monsters gegradeer word.**—100 gram van die pitte, verkry soos in regulasie 3 (a) voorgeskryf, moet met die hand uitgesoek of met behulp van siwwe geskei word in—
 - vreemde voorwerpe;
 - ongedopte grondboontjies;
 - gesplete pitte;
 - pitte bo die $\frac{3}{4}$ duim by $\frac{1}{8}$ duim gleufsif;
 - pitte bo die $\frac{3}{4}$ duim by $\frac{1}{8}$ duim gleufsif;
 - pitte en stukkies pitte onder die $\frac{1}{4}$ duim-rondegatsif; en
 - ongesonde stukkies, gesplete pitte en heel pitte.

Unshelled groundnuts in a sample may not be shelled when determining the grade of a sample.

The screens shall be moved to-and-fro, ± 18 inches in the direction of the lengths of the slots of the slotted screen for 40 strokes per 40 seconds. Each to-and-fro movement constitutes a stroke. Every percentage shall be calculated in relation to the total weight of the test sample inclusive of the kernels of which the determination is made and foreign matter found in the sample. The percentage of kernels above the $\frac{3}{4}$ -inch by $\frac{15}{16}$ -inch screen shall include the kernels above the $\frac{3}{4}$ -inch by $\frac{19}{16}$ -inch screen.

- (c) *Determining the Percentage of the Moisture.*—The percentage of moisture in shelled groundnuts shall be determined by means of the Brown-Duvel apparatus and method as described in Part IV hereof.

PART IV.

METHOD OF DETERMINING THE MOISTURE CONTENT OF GROUNDNUTS.

1. The moisture content of groundnuts shall for grading purposes be determined by the Brown-Duvel moisture test method as described below:—

The Brown-Duvel Moisture Test.—The apparatus for the test consists of the Brown-Duvel moisture testing apparatus in which moisture is driven off by warm oil in which the groundnuts have been immersed, and distilling the moisture into measuring cylinders so graduated that the moisture content may be read directly.

Method of Testing.—Install the apparatus in a place free from draughts. Introduce 100 grammes of groundnuts into the flask, then add 150 c.c. of moisture testing oil. The groundnuts and the oil must be well mixed by shaking. Close the mouth of the flask by means of a rubber stopper through which passes a thermometer so adjusted that four-fifths of the mercury bulb is submerged in the groundnuts and oil. Only a correctly graduated centigrade thermometer 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 with the condenser tube so that it fits properly. The wire gauze with an asbestos centre which is put under 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 shall be of such a height that the bottom of the flask is about $\frac{3}{8}$ inches 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 water in the tank shall be changed after each test.

The cover is then placed over the flask compartment and heating started. The heating may be effected by electrical elements, paraffin blowlamps or alcohol burners (spirit lamps) as supplied for the apparatus.

In all cases, however, the heat shall be so regulated that a temperature of 175° C. is reached in not less than 19 minutes and in not longer 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 desired temperature is reached. 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 then to apply little heat until a few cubic centimetres of water have been driven off. Then the heat may be turned on to normal again and the remaining moisture driven off, within the prescribed period of heating, without foaming taking place.

By die bepaling van die graad van 'n monster mag ongedopte grondboontjies in 'n monster nie uitgedop word nie.

Die siwwe moet 40 stote per 40 sekonde oor ± 18 duim heen-en-weer in die rigting van die lengte van die gleuwe van die gleufsif gestoot word. Elke heen-en-weer bewegings is een stoot.

Iedere persentasie moet bereken word in verhouding tot die totale gewig van die proefmonster met inbegrip van die pitte waarvan die graad bepaal word sowel as vreemde voorwerpe wat in die monster aangetref word.

Die persentasie pitte bo die $\frac{3}{4}$ duim by $\frac{15}{16}$ duim-gleufsif moet die pitte bo die $\frac{3}{4}$ duim by $\frac{19}{16}$ duim-gleufsif insluit.

- (c) *Bepaling van die persentasie vog.*—Die persentasie vog in gedopte grondboontjies word bepaal deur middel van die Brown-Duvel-apparaat en -metode soos in deel IV hiervan beskryf.

DEEL IV.

METODE OM DIE VOGGEHALTE VAN GROND-BOONTJIES TE BEPAAL.

1. Vir graderingsdoeleindes word die voggehalte van grondboontjies bepaal deur middel van die Brown-Duvel-vogtoetsmetode soos hieronder beskryf:—

Die Brown-Duvel-vogtoets.—Die apparaat vir die toets bestaan uit die Brown-Duvel-vogtoetsapparaat waarin vog afgedryf word deur warm olie waarin die grondboontjies gedompel is, en die vog dan te distilleer in maatsilinders wat so in grade verdeel is dat die voggehalte direk daarop afgelees kan word.

Toetsmetode.—Stel die apparaat op in 'n plek waar daar geen trek is nie. Gooi 100 gram grondboontjies in die fles en voeg dan 150 c.c. vogtoetsolie daarby. Meng die grondboontjies en olie goed deur dit te skud. Sluit die bek van die fles deur middel van 'n rubberprop met 'n termometer daardeur, so gestel dat vier-vyftes van die kwikbol onder die oppervlakte van die grondboontjies en olie is. Slegs 'n korrek gegradeerde Celsius-termometer wat spesiaal vir hierdie apparaat vervaardig is, 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 dig sluit. Die gaasdraad met 'n asbesmiddelstuk wat onder die fles kom, moet in 'n goeie toestand wees en so gestel dat wanneer die fles verhit word, die vlam reg in die middel van die asbes brand. Die stander waarop die fles rus, moet so hoog wees dat die bodem van die fles ongeveer $\frac{3}{8}$ duim bokant die asbes is. 'n Korrek gegradeerde maatsilinder word onder die kondenseerbuis geplaas om die water wat afgedryf word, op te vang. 'n Stroom koue water moet gedurig deur die kondenseertenk loop, of as 'n klein Brown-Duvel-apparaat met enkelvak gebruik word met geen voorsiening vir 'n stroom water nie, moet die water in die tenk na elke toets vervang word.

Daarna word 'n deksel oor die fleshouer geplaas en met verhitting begin. Verhitting kan geskied deur middel van elektrisiteit, paraffienblaaslampe of alkoholbranders (spirituslampe) wat vir die apparaat verskaf word.

Die hitte moet egter altyd so gereël word dat 'n temperatuur van 175° Celsius binne minstens 19 en hoogstens 21 minute bereik word. As die verhittingstyd langer duur, gee dit te lae resultate, en duur dit korter, is die resultate weer te hoog. Die verhitting moet afgesluit word sodra die vereiste temperatuur bereik is. As die voggehalte van die monster besonder hoog is, sal die mengsel skuim en oorkook met die normale metode van verhitting. Onder sulke omstandighede kan die juiste voggehalte die beste bepaal word deur die mengsel vinnig te verhit totdat die olie borrel en dan weer baie min totdat 'n paar kubieke sentimeter water afgedryf is. Daarna kan die gewone verhitting weer toegepas en die oorblywende vog binne die voorgeskrewe verhittingstyd sonder skuimvorming afgedryf word.

After the heat is 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 distills over is discoloured the groundnuts may have been burnt and the test shall be repeated. Do not remove the cover nor the thermometer until the temperature has fallen to 160° C. or lower, thereafter remove the cover, disconnect the thermometer and stopper and then the delivery tube.

Shake down all drops clinging to the sides of the measuring cylinder and read off the percentage of moisture. The reading is taken beneath the layer of oil on top of the water. Read results to one-tenth of one per cent. All tests shall 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 difference exceeds 0.2 the test shall be repeated.

In using this apparatus care must be taken to avoid the use of mushy rubber stoppers, to clean and dry the measuring flasks before using them 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 commencing any tests.

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

2. For the purpose of this test—

“oil” means oil for moisture-testing purposes and shall be “Epic” salad and cooking oil manufactured by the Epic Oil Mills (Pty.), Ltd.

PART V.

GENERAL.

1. *Method to Determine Percentages.*—In all cases, unless already specifically mentioned, the determinations shall be made from duplicate samples and be expressed on a percentage basis. The average of the percentages determined in respect of each of the duplicate samples shall be taken.

2. *Classification.*—(a) *Shelled Groundnuts.*—When it is necessary to determine the percentages of groundnuts of the different types for the determination of the class thereof, duplicate 100-gramme samples shall be hand-picked for the separation of the various types. The percentage of the admixture is determined by weight. The average of the percentages determined in respect of each of the duplicate samples shall be taken.

If the groundnuts contain foreign matter and/or chips, 400 grammes of the groundnuts must first be screened and/or hand-picked for the removal of the foreign matter and/or chips.

Duplicate 100-gramme samples are then taken of such pure screened and/or hand-picked groundnuts, and the class determined in the manner described in this sub-regulation.

(b) *Unshelled Groundnuts.*—When it is necessary to determine the percentages of groundnuts of the different types for the determination of the class thereof, duplicate 400-gramme samples shall be hand-picked for the separation of the various types. The percentage of the admixture is determined by weight. The average of the percentages determined in respect of each of the duplicate samples shall be taken. If the groundnuts contain foreign matter a quantity of groundnuts shall first be screened and/or hand-picked for the removal of the foreign matter.

Duplicate 400-gramme samples are then taken of such pure screened and/or hand-picked groundnuts, and the class determined in the manner described in this sub-regulation.

Nadat die verhitte afgesluit is, kan 'n geringe geleidelike styging in temperatuur verwag word. 'n Skielike styging of daling van etlike grade in die temperatuur dui aan dat die vlam gedurende die laaste deel van verhitte te skerp was, en die toets moet dan herhaal word. As die water wat oordistilleer, gekleur is, het die grondboontjies waarskynlik aangebrand en moet die toets herhaal word. Moenie die deksel of die termometer afhaal voordat die temperatuur tot 160° C. of laer gedaal het nie. Haal dan die deksel af, haal die termometer en die prop uit en maak die kondenseerbuis los.

Skud alle druppels aan die kante van die maat-silinder af en lees die persentasie vog daarop af. Die lesing word geneem onderkant die laag olie bo-op die water. Lees die resultate tot een-tiende van een persent. Alle toetse moet tweekeer gedoen word en as die verskil tussen die twee lesings nie groter as 0.2 is nie, kan die gemiddelde van die twee lesings as die voggehalte geneem word. As die verskil groter as 0.2 is, moet die toets herhaal word. By die gebruik van die apparaat moet gesorg word dat geen voors rubberproppe gebruik word nie, dat die maat-silinder voor 'n toets skoon- en drooggemaak word, dat olie nie direk na 'n vorige toets gebruik word nie en dat die kwikkolom in die termometer ongebroke is voordat daar met 'n toets begin word.

Vars olie of olie wat vir geruime tyd nie gebruik is nie, moet vir elke toets gebruik word, en die olie moet in iedere geval verhit word tot 'n temperatuur van sowat 200° C. en dan gelaat word om af te koel voordat dit gebruik word.

2. Vir die doeleindes van hierdie toets beteken— „olie”, olie vir vogtoetsdoeleindes en moet dit „Epic”-slaai-en-kookolie wees, vervaardig deur die Epic Oil Mills (Pty.), Ltd.

DEEL V.

ALGEMEEN.

1. *Metode om persentasies te bepaal.*—Alle bepalinge, tensy reeds uitdruklik gemeld, moet volgens duplikaat-monsters gedoen en volgens 'n persentasiebasis uitgedruk word. Die gemiddelde van die persentasies wat ten opsigte van elkeen van die duplikaatmonsters bepaal is, moet geneem word.

2. *Klassifikasie.*—(a) *Gedopte grondboontjies.*—Wanneer dit nodig is om die persentasies van die verskillende tipes grondboontjies te bepaal ten einde vas te stel tot watter klas grondboontjies hulle behoort, moet duplikaat-monsters van 100 gram elk met die hand uitgesoek word om die verskillende tipes te skei. Die persentasie van die mengsel word volgens gewig bepaal. Die gemiddelde van die persentasies wat ten opsigte van elk van die duplikaat monsters bepaal is, moet geneem word. As die grondboontjies vreemde voorwerpe en/of stukkies grondboontjies bevat, word 400 gram van die grondboontjies eers gesif en/of met die hand uitgesoek vir die verwydering van die vreemde voorwerpe en/of stukkies grondboontjies. Duplikaatmonsters van 100 gram elk word dan van sodanige suiwer gesifte en/of met die hand uitgesoekte grondboontjies geneem en die klas bepaal volgens die wyse in hierdie subregulasie beskryf.

(b) *Ongedopte grondboontjies.*—Wanneer dit nodig is om die persentasies van die verskillende tipes grondboontjies te bepaal ten einde vas te stel tot watter klas grondboontjies hulle behoort moet duplikaatmonsters van 400 gram elk met die hand uitgesoek word om die verskillende tipes te skei. Die persentasie van elke mengsel word volgens gewig bepaal. Die gemiddelde van die persentasies wat ten opsigte van elk van die duplikaat-monsters bepaal is, moet geneem word. As die grondboontjies vreemde voorwerpe bevat, word 'n hoeveelheid van die grondboontjies eers gesif en/of met die hand uitgesoek vir die verwydering van die vreemde voorwerpe. Duplikaatmonsters van 400 gram elk word dan van sodanige suiwer gesifte en/of met die hand uitgesoekte grondboontjies geneem en die klas bepaal volgens die wyse in hierdie subregulasie beskryf.

* No. 958.]

[6 May 1955.]

GRADES AND THE MANNER OF GRADING ACCORDING TO QUALITY OF GROUNDNUTS INTENDED FOR EDIBLE PURPOSES.

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 out in the Annexure hereto prescribing grades and the manner of grading according to quality of a regulated product, viz., groundnuts in substitution for the regulations published under Government Notice No. 1084 of 1954.

ANNEXURE.

PART I.

DEFINITIONS.

In these regulations, unless inconsistent with the context, the expression—

- (i) "blackened groundnuts" means groundnuts, the shells of which are mouldy or blackened over more than half their surface; (xiv)
- (ii) "broken and open groundnuts" means groundnuts of which the shells have been broken, or which are open in any way; (ii)
- (iii) "chips" means the smaller parts of groundnut kernels which pass through the $\frac{1}{4}$ -inch round-hole screen; (xiii)
- (iv) "Class A groundnuts" means groundnuts of the Virginia Bunch type containing not more than 3 per cent of any other type of groundnut; (v)
- (v) "Class B groundnuts" means groundnuts of the Natal Common type containing not more than 3 per cent of any other type of groundnut; (vi)
- (vi) "Class C groundnuts" means groundnuts of the Virginia Bunch, Natal Common, or Egyptian Giant types or any other type of groundnut which do not conform to the requirements prescribed for Classes A, B and D groundnuts; (vii)
- (vii) "Class D groundnuts" means groundnuts of the brown, long-kernelled Egyptian Giant type containing not more than 5 per cent of any other type of groundnuts; (viii)
- (viii) "foreign matter" means stems, roots, shells, clods or any material other than groundnuts; (xv)
- (ix) "groundnuts" means the fruits of *Arachis hypogaea*; (iv)
- (x) "insects" means the grain weevil (*Sitophilus granarius* Linn.), the rice weevil (*Sitophilus oryzae* Linn.), the Angoumois grain moth (*Sitotroga cerealella* Oliv.), the Mediterranean meal moth (*Ephistia kuehniella* Zell.), or the Indian meal moth (*Plodia interpunctella*); (ix)
- (xi) "kernels" means the seeds of groundnuts; (xii)
- (xii) "other type" in relation to any sample of groundnuts, means any type other than the type of the class of which that sample mainly consists; (i)
- (xiii) "split kernels" means groundnut kernels of which the testa has split off over more than half their surface and the separated halves of groundnut kernels or parts thereof, which do not pass through the $\frac{1}{4}$ -inch round-hole screen; (iii)
- (xiv) "unshelled groundnuts" means groundnuts or parts of groundnuts containing kernels; (x)
- (xv) "unsound" means rancid, decayed or mouldy in any respect, damaged by heat or fungi or insects or sprouted or showing yellow discoloration when the testa is removed; provided that groundnuts of the Natal Common type showing purplish anthocyanic blotches in or on the testa shall not be regarded as unsound; (xi)

* No. 958.]

[6 Mei 1955.]

GRADE EN MANIER VAN GRADERING VOLGENS KWALITEIT VAN GRONDBOONTJES WAT VIR EETDOELEINDES BESTEM IS.

Sy Eksellensie die Goewerneur-generaal het, kragtens die bevoegdheid hom verleen by artikel *drie-en-veertig* van die Bemerkingswet, 1937 (Wet No. 26 van 1937), soos gewysig, die regulasies gemaak wat in die Bylae hiervan uiteengesit word en waarin grade en die manier van gradering volgens kwaliteit vir die beheerde produk, grondboon-tjies, voorgeskryf word, ter vervanging van die regulasies gepubliseer by Goewermmentskennisgewing No. 1084 van 1954.

BYLAE.

DEEL I.

WOORDOMSKRYWING.

Tensy dit in stryd is met die samehang, beteken in hierdie regulasie—

- (i) „ander tipe”, met betrekking tot enige monster grondboon-tjies, enige ander tipe as die tipe van die klas waaruit daardie monster hoofsaaklik bestaan; (xii)
- (ii) „gebreekte en oop grondboon-tjies”, grondboon-tjies waarvan die doppe gebreek of op enige wyse oop is; (ii)
- (iii) „gesplete pitte” grondboon-tjiepitte waarvan die saadhuid oor meer as die helfte van die oppervlakte van die pitte afgekom het en die afsonderlike helftes of kleiner gedeeltes van grondboon-tjiepitte wat nie deur die $\frac{1}{4}$ -duim rondegatsif gaan nie; (xiii)
- (iv) „grondboon-tjies”, die vrugte van *Arachis hypogaea*; (ix)
- (v) „grondboon-tjies, klas A,” grondboon-tjies van die Virginia Bunch-tipe wat nie meer as 3 persent van enige ander tipe grondboon-tjie bevat nie; (iv)
- (vi) „grondboon-tjies, klas B,” grondboon-tjies van die Natal Common-tipe wat nie meer as 3 persent van enige ander tipe grondboon-tjie bevat nie; (v)
- (vii) „grondboon-tjies, klas C,” grondboon-tjies van die Virginia Bunch-, Natal Common- of Egyptian Giant-tipe of enige ander tipe grondboon-tjie wat nie voldoen aan die vereistes gestel vir grondboon-tjies van klasse A, B en D nie; (vi)
- (viii) „grondboon-tjies, klas D,” grondboon-tjies van die bruin Egyptian Giant-tipe met langwerpige pitte wat nie meer as 5 persent van enige ander tipe grondboon-tjie bevat nie; (vii)
- (ix) „insekte”, die graankalander (*Sitophilus granarius* Linn.), die ryskalander (*Sitophilus oryzae* Linn.), die Franse koringmot (*Sitotroga cerealella* Oliv.), die Mediterreense meelmot (*Ephistia kuehniella* Zell.), of die Indiese meelmot (*Plodia interpunctella*); (x)
- (x) „ongedopte grondboon-tjies”, grondboon-tjies of gedeeltes van grondboon-tjies wat pitte bevat; (xiv)
- (xi) „ongesond”, galsterig, bederf of muf in enige opsig, deur hitte of swamme of insekte beskadig of uitloop of wat geel verkleuring toon wanneer die saadhuid verwyder word; met dien verstande dat waar grondboon-tjies van die Natal Common-tipe persagtige antosianien vlekke in of op die saadhuid het, sodanige grondboon-tjies nie as ongesond beskou word nie; (xv)
- (xii) „pitte”, die saad van grondboon-tjies; (xi)
- (xiii) „stukkies”, die kleinere gedeeltes van grondboon-tjiepitte wat deur die $\frac{1}{4}$ -duim rondegatsif gaan; (iii)
- (xiv) „swartgeklepte grondboon-tjies”, grondboon-tjies waarvan die doppe oor meer as die helfte van die oppervlakte daarvan skimmel of swart gevlek is; (i)
- (xv) „vreemde voorwerpe”, stingels, wortels, doppe, stukkies grond of enige ander voorwerpe as grondboon-tjies; (viii)

- (xvi) "¾-inch × 17/64-inch screen" means a hand-screen 16 inches by 9 inches having ¾-inch by 17/64-inch slotted perforations; (xvi)
- (xvii) "¾-inch × 19/64-inch screen" means a hand-screen 16 inches by 9 inches having ¾-inch by 19/64-inch slotted perforations; (xvii)
- (xviii) "¾-inch × 21/64-inch screen" means a hand-screen 16 inches by 9 inches having ¾-inch by 21/64-inch slotted perforations; (xviii)
- (xix) "¾-inch round-hole screen" means a hand-screen 16 inches by 9 inches with round perforations ¾-inch in diameter; and (xix)
- (xx) "4, 3, 2 and 1 kernelled groundnuts" means groundnuts which according to the formation of their shells apparently contain 4, 3, 2 and single kernels. (xx)

PART II.

GRADES AND MANNER OF GRADING OF UNSHELLED GROUNDNUTS INTENDED FOR EDIBLE PURPOSES.

1. Unshelled groundnuts intended for edible purposes shall, subject to the provisions of regulation 2 hereof, be graded in accordance with the requirements specified for the respective grades in the following tables:—

TABLE I.

(a) For the grading of unshelled Virginia Bunch type of groundnuts.

Grade No.	Minimum Percentage by Weight of 3-4-Kernelled Groundnuts Required.	Maximum Percentage by Weight of 2-Kernelled Groundnuts Allowed.	Maximum Percentage by Weight of 1-Kernelled Groundnuts Allowed.	Minimum Percentage by Weight of Total Sound Kernels Required.
V4.....	97	3	—	60
V2.....	—	—	5	60

Graad No.	Minimum persentasie per gewig van 3-4-pitgrondboontjies vereis.	Maksimum persentasie per gewig van 2-pitgrondboontjies toegelaat.	Maksimum persentasie per gewig van 1-pitgrondboontjies toegelaat.	Minimum persentasie per gewig van totale gesonde pitinhoud vereis.
V4.....	97	3	—	60
V2.....	—	—	5	60

TABLE II.

(b) For the grading of unshelled Natal Common type of groundnuts.

Grade No.	Minimum Percentage by Weight of 2-Kernelled Groundnuts Required.	Maximum Percentage by Weight of 1-Kernelled Groundnuts Allowed.	Minimum Percentage by Weight of Total Sound Kernels Required.
NC2.....	95	5	65

Graad No.	Minimum persentasie per gewig van 2-pitgrondboontjies vereis	Maksimum persentasie per gewig van 1-pitgrondboontjies toegelaat.	Minimum persentasie per gewig van totale gesonde pitinhoud vereis.
NC2.....	95	5	65

- (xvi) „¾ duim by 17/64 duim gleufsif”, 'n handsif, 16 duim by 9 duim groot, met gleuwe van ¾ duim by 17/64 duim; (xvi)
- (xvii) „¾ duim by 19/64 duim gleufsif”, 'n handsif 16 duim by 9 duim groot, met gleuwe van ¾ duim by 19/64 duim; (xvii)
- (xviii) „¾ duim by 21/64 duim gleufsif”, 'n handsif, 16 duim by 9 duim groot, met gleuwe van ¾ duim by 21/64 duim; (xviii)
- (xix) „¾-duim rondegatsif”, 'n handsif, 16 duim by 9 duim groot, met ronde gate ¾ duim in deursnee; (xix)
- (xx) „4-, 3-, 2- en 1-pitgrondboontjies,” grondboontjies wat blykbaar volgens hul dopformasie 4, 3, 2 en enkele pitte bevat; (xx)

DEEL II.

GRADE EN MANIER VAN GRADERING VAN ONGEDOPE GRONDBOONTJIES WAT VIR EETDOELEINDES BESTEM IS.

1. Ongedopte grondboontjies wat vir eetdoeleindes bestem is, word behoudens die bepalinge van regulasie 2 hiervan gegradeer ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabelle genoem:—

TABEL I.

(a) Vir die gradering van ongedopte grondboontjies van die Virginia Bunch-tipe.

TABEL II.

(b) Vir die gradering van ongedopte Natal Common-tipe grondboontjies.

2. Unshelled groundnuts which do not conform to the requirements for one or other of the grades set out in regulation 1 above, or which—

- (i) contain more than 0.5 per cent by weight of groundnuts and/or shelled kernels of other types; or
- (ii) contain more than 1.0 per cent by weight of shelled kernels; or
- (iii) contain more than 1.0 per cent by weight of blackened groundnuts; or
- (iv) contain more than 5 per cent by weight of broken and open groundnuts; or
- (v) contain more than 0.5 per cent by weight of foreign matter; or
- (vi) contain more than 7 per cent of moisture; or
- (vii) contain live insects,

shall be considered as not complying with these grades.

3. To determine the grades of unshelled groundnuts as specified in regulation 1 above, the following methods should be followed:—

- (a) *Taking of Samples.*—Samples of not less than 10 lb. shall be obtained by taking more or less equal quantities of groundnuts from at least 5 per cent of the total number of bags in a consignment, and by mixing together all the quantities so taken from bags containing groundnuts, found to be generally of the same quality. Any bags differing in any respect from the others shall be placed aside and graded separately.
- (b) *Determining the Percentage of 4, 3, 2 and 1 Kernelled Groundnuts.*—The percentage of 4, 3, 2 and 1 kernelled groundnuts shall be determined by hand-picking 400 grammes of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (c) *Determining the Total Sound Kernel Content.*—The total sound kernel content shall be determined by shelling 100 grammes of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above and by hand-picking the unsound kernels.
- (d) *Determining the Percentage of Groundnuts of Other Types.*—The percentage of groundnuts of other types shall be determined by hand-picking 400 grammes of shelled and unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (e) *Determining the Percentage of Shelled Kernels.*—The percentage of shelled kernels shall be determined by hand-picking 400 grammes of shelled and unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (f) *Determining the Percentage of Blackened Groundnuts.*—The percentage of blackened groundnuts shall be determined by hand-picking 400 grammes of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (g) *Determining the Percentage of Broken and Open Groundnuts.*—The percentage of broken and open groundnuts shall be determined by hand-picking 400 grammes of unshelled groundnuts obtained in the manner indicated in regulation 3 (a) above.
- (h) *Determining the Percentage of Foreign Matter.*—The percentage of foreign matter shall be determined from a sample of at least 10 lb. which is obtained by taking more or less equal quantities from at least 5 per cent of the total number of bags in any consignment and mixing together all the quantities so taken from bags containing groundnuts found to be generally of the same quality, and by screening and/or hand-picking the sample so obtained.
- (i) *Determining the Percentage of Moisture.*—The percentage of moisture in unshelled groundnuts shall be determined by shelling groundnuts obtained in the manner indicated in regulation 3 (a) above and determining the moisture in the kernels by the Brown-Duvel apparatus and method as described in Part IV hereof.

2. Ongedopte grondboontjies wat nie voldoen aan die vereistes vir die een of ander van die grade in regulasie 1 hierbo genoem nie, of wat—

- (i) meer as 0.5 persent per gewig grondboontjies en/of uitgedopte pitte van ander tipes bevat; of
- (ii) meer as 1.0 persent per gewig uitgedopte pitte bevat; of
- (iii) meer as 1.0 persent per gewig swart gevlekte grondboontjies bevat; of
- (iv) meer as 5 persent per gewig gebreekte en oop grondboontjies bevat; of
- (v) meer as 0.5 persent per gewig vreemde voorwerpe bevat; of
- (vi) meer as 7 persent vog bevat; of
- (vii) lewende insekte bevat,

word geag nie aan die vereistes vir hierdie grade te voldoen nie.

3. By die bepaling van die grade van ongedopte grondboontjies soos in regulasie 1 hierbo genoem, moet die volgende metodes gevolg word:—

- (a) *Neem van monsters.*—Monsters van minstens 10 lb. word verkry deur min of meer gelyke hoeveelhede grondboontjies uit minstens 5 persent van die totale aantal houters in 'n besending uit te haal en al die hoeveelhede aldus verkry uit houters met grondboontjies wat oor die algemeen van dieselfde kwaliteit is, deeglik te meng. Enige sakke waarvan die grondboontjies in enige opsig van die res verskil, moet opsy gesit en afsonderlik gegradeer word.
- (b) *Bepaling van die persentasie 4-, 3-, 2- en 1-pitgrondboontjies.*—Die persentasie 4-, 3-, 2- en 1-pitgrondboontjies word bepaal deur 400 gram ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (c) *Bepaling van die totale gesonde pitinhoud.*—Die totale gesonde pitinhoud word bepaal deur 100 gram ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, uit te dop en die ongesonde pitte met die hand uit te soek.
- (d) *Bepaling van die persentasie grondboontjies van ander tipes.*—Die persentasie grondboontjies van ander tipes word bepaal deur 400 gram gedopte en ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (e) *Bepaling van die persentasie uitgedopte pitte.*—Die persentasie uitgedopte pitte word bepaal deur 400 gram gedopte en ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (f) *Bepaling van die persentasie swartgeklepte grondboontjies.*—Die persentasie swartgeklepte grondboontjies word bepaal deur 400 gram ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (g) *Bepaling van die persentasie gebreekte en oop grondboontjies.*—Die persentasie gebreekte en oop grondboontjies word bepaal deur 400 gram ongedopte grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek.
- (h) *Bepaling van die persentasie vreemde voorwerpe.*—Die persentasie vreemde voorwerpe word bepaal volgens 'n monster van minstens 10 lb. wat verkry word deur ongeveer gelyke hoeveelhede uit minstens 5 persent van die totale aantal sakke in enige besending grondboontjies te haal en al die hoeveelhede aldus verkry uit sakke met grondboontjies wat oor die algemeen van dieselfde kwaliteit is, met mekaar te meng, en die monster aldus verkry, te sif en/of met die hand uit te soek.
- (i) *Bepaling van die voggehalte.*—Die persentasie vog in ongedopte grondboontjies word bepaal deur grondboontjies, verkry op die wyse in regulasie 3 (a) hierbo beskryf, uit te dop en die voggehalte van die pitte te bepaal met behulp van die Brown-Duvel-apparaat en -metode soos in deel IV hiervan beskryf.

PART III.

GRADES AND MANNER OF GRADING OF SHELLED GROUNDNUTS INTENDED FOR EDIBLE PURPOSES.

1. Shelled groundnuts intended for edible purposes shall, subject to the provisions of regulation 2 hereof, be graded in accordance with the requirements specified for the respective grades in the following tables:—

TABLE I.

(a) For the grading of shelled Virginia Bunch and Natal Common types of groundnuts.

Grade.		Maximum Percentage by Weight of Kernels Allowed Above or Below a Specific Screen.					
Virginia Bunch.	Natal Common.	$\frac{3}{16}$ " $\times$ $\frac{1}{4}$ " Slotted Screen.		$\frac{1}{8}$ " $\times$ $\frac{1}{4}$ " Slotted Screen.		$\frac{1}{16}$ " $\times$ $\frac{1}{4}$ " Slotted Screen.	
		Above.	Below.	Above.	Below.	Above.	Below.
V 45.....	NC 56.....	—	21	—	6	—	1
V 56.....	NC 67.....	7	—	—	17	—	2
V 67.....	NC 78.....	3	—	23	—	—	4

DEEL III.

GRADE EN MANIER VAN GRADERING VAN GEDOPTTE GRONDBOONTJIES WAT VIR EETDOELEINDES BESTEM IS.

1. Gedopte grondbontjies wat vir eetdoeleindes bestem is, word behoudens die bepalings van regulasie 2 hiervan gegradeer ooreenkomstig die vereistes vir die onderskeie grade in onderstaande tabelle genoem:—

TABEL I.

(a) Vir die gradering van gedopte grondbontjies van die Virginia Bunch- en Natal Common-tipe.

Graad.		Maksimum persentasie per gewig pitte toegelaat bo of onder 'n bepaalde sif.					
Virginia Bunch.	Natal Common.	$\frac{3}{16}$ " $\times$ $\frac{1}{4}$ " gleufsif.		$\frac{1}{8}$ " $\times$ $\frac{1}{4}$ " gleufsif.		$\frac{1}{16}$ " $\times$ $\frac{1}{4}$ " gleufsif.	
		Bo.	Onder.	Bo.	Onder.	Bo.	Onder.
V 45.....	NC 56.....	—	21	—	6	—	1
V 56.....	NC 67.....	7	—	—	17	—	2
V 67.....	NC 78.....	3	—	23	—	—	4

TABLE II.

(b) For the grading of shelled Egyptian Giant type of groundnuts.

Grade.	Maximum Number of Kernels per Ounce Required.
EGSC.....	30
EGC.....	35
EGMC.....	45

2. Shelled groundnuts which do not conform to the requirements for one or other of the classes and grades set out in regulation 1 above, or which—

- have a musty, mouldy, sour or any other objectionable odour; or
 - have been treated with any chemical and thereby or otherwise rendered unsuitable for the processing therefrom of sound food for human consumption; or
 - contain more than 4 per cent by weight of split kernels; or
 - contain more than 1 per cent by weight of unsound whole and split kernels; or
 - contain more than 0.5 per cent by weight of kernels of other types of groundnuts; or
 - contain more than 0.5 per cent by weight of unshelled groundnuts; or
 - contain more than 0.5 per cent by weight of foreign matter; or
 - contain more than 7 per cent of moisture; or
 - contain live insects,
- shall be considered as not complying with these grades.

TABEL II.

(b) Vir die gradering van gedopte grondbontjies van die Egyptian Giant-tipe.

Graad.	Maksimum aantal pitte per ons vereis.
EGSC.....	30
EGC.....	35
EGMC.....	45

2. Gedopte grondbontjies wat nie voldoen aan die vereistes vir die een of ander van die klasse en grade in regulasie 1 hierbo genoem nie, of wat—

- 'n muwwe, skimmel, suur of enige ander onaangename reuk het; of
 - met chemiese stof behandel en sodoende of op 'n ander wyse ongeskik gemaak is sodat dit nie tot gesonde voedsel vir menslike verbruik verwerk kan word nie; of
 - meer as 4 persent gewig gesplete pitte bevat; of
 - meer as 1 persent per gewig ongesonde heel en gesplete pitte bevat; of
 - meer as 0.5 persent per gewig grondbontjies van 'n ander tipe bevat; of
 - meer as 0.5 persent per gewig ongedopte grondbontjies bevat; of
 - meer as 0.5 persent per gewig vreemde voorwerpe bevat; of
 - meer as 7 persent vog bevat; of
 - lewende insekte bevat,
- word geag nie aan die vereistes vir hierdie grade te voldoen nie.

3. To determine the grades of groundnuts as specified in regulation 1 above, the following methods should be followed:—

- (a) *Taking of Samples.*—Samples for the testing of shelled groundnuts intended for edible purposes shall be obtained by taking small more or less equal quantities by hand and/or by means of a grain probe, from the bags to be graded. When the sample is taken by hand the grader shall open not less than five per cent of the bags taken at random from all the bags in a consignment. If the kernels from all the bags in a consignment are found to be generally of the same class and quality, the samples from all the bags shall be thrown together into a pan. The grade and class are determined from the composite sample obtained after the kernels have been thoroughly mixed. Any bags differing in any respect from the others shall be placed aside and graded separately.
- (b) *Determining the Percentages of Kernels on or below the Various Screens.*—The percentages of kernels on or below the various screens shall be determined from duplicate samples obtained in the manner indicated in regulation 3 (a) above; provided that such samples shall first be hand-picked for the removal of split kernels, unshelled groundnuts and foreign matter. Duplicate 400-gramme samples of such pure hand-picked groundnuts are then screened over the prescribed screens. The screens shall be moved to-and-fro over ± 18 inches in the direction of the lengths of the slots for 40 strokes per 40 seconds. Each to-and-fro movement constitutes a stroke. The weights of the kernels on or below the various screens, expressed as a percentage of the total weight of that sample gives the percentages of kernels on or below the various screens. The average of the percentages obtained in respect of the duplicate samples shall be taken.
- (c) *Determining the Number of Kernels per Ounce.*—The number of kernels per ounce shall be determined by weighing off three separate one-ounce samples of kernels obtained in the manner indicated in regulation 3 (a) above and counting the kernels making up each one-ounce sample. The average of the three counts shall be the number of kernels per ounce.
- (d) *Determining the Percentage of Split Kernels.*—The percentage of split kernels shall be determined by hand-picking duplicate 100-gramme samples obtained in the manner indicated in regulation 3 (a) above. The weight of the split kernels so obtained in each sample expressed as a percentage of the total weight of that sample, gives the percentage of split kernels in the sample. The average of the two percentages so obtained shall be taken.
- (e) *Determining the Percentage of Unsound Whole and Split Kernels.*—The percentage of unsound whole and split kernels shall be determined by hand-picking duplicate 100-gramme samples obtained in the manner indicated in regulation 3 (a) above. The weight of the unsound whole and split kernels so obtained in each sample, expressed as a percentage of the total weight of that sample, gives the percentages of unsound whole and split kernels in the sample. The average of the two percentages so obtained shall be taken.
- (f) *Determining the Percentage of Kernels of Other Types of Groundnuts.*—The percentage of kernels of other types of groundnuts shall be determined by hand-picking duplicate 100-gramme samples obtained in the manner indicated in regulation 3 (a) above. The weight of the kernels of other types of groundnuts so obtained in each sample expressed as a percentage of the total weight of that sample gives the percentage of kernels of other types of groundnuts in the sample. The average of the two percentages so obtained shall be taken.

3. By die bepaling van die grade van grondboontjies soos in regulasie 1 hierbo genoem, moet die volgende metodes gevolg word:—

- (a) *Neem van monsters.*—Monsters vir die toets van gedopte grondboontjies wat vir eetdoeleindes bestem is, word verkry deur klein, min of meer gelyke hoeveelhede met die hand en/of 'n steker uit te haal uit die sakke wat gegradeer moet word. Wanneer die monster met die hand geneem word, moet die gradeerder minstens vyf persent van die sakke na willekeur uit al die sakke in 'n besending geneem, oopmaak. Indien gevind word dat die pitte uit al die sakke in 'n besending oor die algemeen van dieselfde klas en kwaliteit is, moet die monsters uit al die sakke saam in 'n pan gegooi word. Die graad en klas word bepaal uit die saamgevoegde monster wat verkry word nadat die pitte deeglik gemeng is. Enige sakke waarvan die grondboontjies in enige opsig van die res verskil, moet opsy gesit en afsonderlik gegradeer word.
- (b) *Bepaling van die persentasies pitte op of onder die onderskeie siwwe.*—Die persentasies pitte op of onder die onderskeie siwwe word bepaal van duplikaatmonsters verkry op die wyse in regulasie 3 (a) hierbo beskryf; met dien verstande dat sodanige monsters met die hand uitgesoek moet word vir die verwydering van die gesplete pitte, ongedopte grondboontjies en vreemde voorwerpe. Duplikaatmonsters van 400 gram elk van sodanige suiwer handuitgesoekte grondboontjies word dan met die voorgeskrewe siwwe gesif. Die siwwe moet 40 stote per 40 sekondes oor ± 18 duim heen-en-weer gestoot word in die rigting van die lengte van die gleuwe. Elke heen-en-weer-beweging is een stoot. Die gewig van die pitte op of onder die onderskeie siwwe, uitgedruk in 'n persentasie van die totale gewig van die besondere monster, gee die persentasie pitte op of onder die siwwe. Die gemiddelde van die persentasies verkry van die duplikaatmonsters, moet geneem word.
- (c) *Bepaling van die aantal pitte per ons.*—Die aantal pitte per ons word bepaal deur drie afsonderlike monsters van een ons elk af te weeg uit pitte verkry op die wyse in regulasie 3 (a) hierbo beskryf, en die aantal pitte te tel waaruit elke monster van een ons bestaan. Dit gemiddelde van die drie tellings is die aantal pitte per ons.
- (d) *Bepaling van die persentasie gesplete pitte.*—Die persentasie gesplete pitte word bepaal deur duplikaat monsters van 100 gram elk, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek. Die gewig van die gesplete pitte aldus verkry uit elke monster, uitgedruk in 'n persentasie van die totale gewig van daardie monster, gee die persentasie gesplete pitte in die monster. Die gemiddelde van die twee persentasies aldus sentasies aldus verkry, moet geneem word.
- (e) *Bepaling van die persentasie ongesonde heel en gesplete pitte.*—Die persentasie ongesonde heel en gesplete pitte word bepaal deur duplikaatmonsters van 100 gram elk, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek. Die gewig van die ongesonde heel en gesplete pitte aldus verkry uit elke monster, uitgedruk in 'n persentasie van die totale gewig van daardie monster, gee die persentasie ongesonde heel en gesplete pitte in die monster. Die gemiddelde van die twee persentasies aldus verkry, moet geneem word.
- (f) *Bepaling van die persentasie pitte van ander tipes grondboontjies.*—Die persentasie pitte van ander tipes grondboontjies word bepaal deur duplikaatmonsters van 100 gram elk, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek. Die gewig van die pitte van ander tipes grondboontjies aldus verkry uit elke monster, uitgedruk in 'n persentasie van die totale gewig van daardie monster, gee die persentasie pitte van ander tipes grondboontjies in die monster. Die gemiddelde van die twee persentasies aldus verkry, moet geneem word.

(g) *Determining the Percentage of Unshelled Groundnuts.*—The percentage of unshelled groundnuts shall be determined by hand-picking duplicate 100-gramme samples obtained in the manner indicated in regulation 3 (a) above. The weight of the unshelled groundnuts so obtained in each sample, expressed as a percentage of the total weight of that sample, gives the percentage of unshelled groundnuts in the sample. The average of the two percentages so obtained shall be taken.

(h) *Determining the Percentages of Foreign Matter.*—The percentage of foreign matter shall be determined by hand-picking duplicate 100-gramme samples obtained in the manner indicated in regulation 3 (a) above. The weight of the foreign matter so obtained in each sample, expressed as a percentage of the total weight of that sample, gives the percentage of foreign matter in the sample. The average of the two percentages so obtained shall be taken.

(i) *Determining the Percentage of Moisture.*—The percentage of moisture in shelled groundnuts for edible purposes shall be determined by means of the Brown-Duvel apparatus and method as described in Part IV hereof.

PART IV.

METHOD OF DETERMINING THE MOISTURE CONTENT OF GROUNDNUTS.

1. The moisture content of groundnuts shall for grading purposes be determined by the Brown-Duvel moisture test method as described below:—

The Brown-Duvel Moisture Test.—The apparatus for the test consists of the Brown-Duvel moisture testing apparatus in which moisture is driven off by warm oil in which the groundnuts have been immersed, and distilling the moisture into measuring cylinders so graduated that the moisture content may be read directly.

Method of Testing.—Install the apparatus in a place free from draughts. Introduce 100 grammes of groundnuts into the flask, then add 150 c.c. of moisture testing oil. The groundnuts and the oil must be well mixed by shaking. Close the mouth of the flask by means of a rubber stopper through which passes a thermometer so adjusted that four-fifths of the mercury bulb is submerged in the groundnuts and oil. Only a correctly graduated centigrade thermometer 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 with the condenser tube so that it fits properly. The wire gauze with an asbestos centre which is put under 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 shall be of such a height that the bottom of the flask is about $\frac{3}{8}$ inches 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 water in the tank shall be changed after each test.

The cover is then placed over the flask compartment and heating started. The heating may be effected by electrical elements, paraffin blow-lamps or alcohol burners (spirit lamps) as supplied for the apparatus.

(g) *Bepaling van die persentasie ongedopte grondboontjies.*—Die persentasie ongedopte grondboontjies word bepaal deur duplikaatmonsters van 100 gram elk, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek. Die gewig van die ongedopte grondboontjies aldus verkry uit elke monster, uitgedruk in 'n persentasie van die totale gewig van daardie monster, gee die persentasie ongedopte grondboontjies in die monster. Die gemiddelde van die twee persentasies aldus verkry, moet geneem word.

(h) *Bepaling van die persentasie vreemde voorwerpe.*—Die persentasie vreemde voorwerpe word bepaal deur duplikaatmonsters van 100 gram elk, verkry op die wyse in regulasie 3 (a) hierbo beskryf, met die hand uit te soek. Die gewig van die vreemde voorwerpe aldus verkry uit elke monster, uitgedruk in 'n persentasie van die totale gewig van daardie monster, gee die persentasie vreemde voorwerpe in die monster. Die gemiddelde van die twee persentasies aldus verkry, moet geneem word.

(i) *Bepaling van die persentasie vog.*—Die persentasie vog in gedopte grondboontjies vir die eetdoeleindes word bepaal deur middel van die Brown-Duvel-apparaat en -metode soos in deel IV hiervan beskryf.

DEEL IV.

METODE OM VOGGEHALTE VAN GROND-BOONTJIES TE BEPAAL.

1. Vir graderingsdoeleindes word die voggehalte van grondboontjies bepaal deur middel van die Brown-Duvel-vogtoetsmetode soos hieronder beskryf:—

Die Brown-Duvel-vogtoets.—Die apparaat vir die toets bestaan uit die Brown-Duvel-vogtoetsapparaat waarin vog afgedryf word deur warm olie waarin die grondboontjies gedompel is, en die vog dan te distilleer in maatsilinders wat so in grade verdeel is dat die voggehalte direk daarop afgelees kan word.

Toetsmetode.—Stel die apparaat op in 'n plek waar daar geen trek is nie. Gooi 100 gram grondboontjies in die fles en voeg dan 150 c.c. vogtoetsolie daarby. Meng die grondboontjies en olie goed deur dit te skud. Sluit die bek van die fles deur middel van 'n rubberprop met 'n termometer daardeur, so gestel dat vier-vyftes van die kwikbol onder die oppervlakte van die grondboontjies en olie is. Slegs 'n korrek gegradueerde Celsiustermometer wat spesiaal vir hierdie apparaat vervaardig is, 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 dig sluit. Die gaasdraad met 'n asbesmiddelstuk wat onder die fles kom, moet in 'n goeie toestand wees en so gestel dat wanneer die fles verhit word, die vlam reg in die middel van die asbes brand. Die staander waarop die fles rus, moet so hoog wees dat die bodem van die fles ongeveer $\frac{3}{8}$ duim bokant die asbes is. 'n Korrek gegradueerde maatsilinder word onder die kondenseerbuis geplaas om die water wat afgedryf word, op te vang. 'n Stroom koue water moet gedurig deur die kondenseertenk loop, of as 'n klein Brown-Duvel-apparaat met enkelvlak gebruik word met geen voorsiening vir 'n stroom water nie, moet die water in die tenk na elke toets vervang word.

Daarna word 'n deksel oor die fleshouer geplaas en met verhitting begin. Verhitting kan geskied deur middel van elektrisiteit, paraffienblaaslampe of alkoholbranders (spirituslampe) wat vir die apparaat verskaf word.

In all cases, however, the heat shall be so regulated that a temperature of 175° C. is reached in not less than 19 minutes and in not longer 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 desired temperature is reached. 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 then to apply little heat until a few cubic centimetres of water have been driven off. Then the heat may be turned on to normal again and the remaining moisture driven off, within the prescribed period of heating, without foaming, taking place.

After the heat is 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 distills over is discoloured the groundnuts may have been burnt and the test shall be repeated. Do not remove the cover nor the thermometer until the temperature has fallen to 160° C. or lower, thereafter remove the cover, disconnect the thermometer and stopper and then the delivery tube.

Shake down all drops clinging to the sides of the measuring cylinder and read off the percentage of moisture. The reading is taken beneath the layer of oil on top of the water. Read results to one-tenth of one per cent. All tests shall 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 difference exceeds 0.2 the test shall be repeated.

In using this apparatus care must be taken to avoid the use of mushy rubber stoppers, to clean and dry the measuring flasks before using them 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 commencing any tests.

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

2. For the purpose of this test—

“Oil” means oil for moisture-testing purposes and shall be “Epic” salad and cooking oil manufactured by the Epic Oil Mills (Pty.), Ltd.

PART V.

GENERAL.

1. *Method to Determine Percentages.*—In all cases, unless already specifically mentioned, the determination shall be made from duplicate samples and be expressed on a percentage basis. The average of the percentages determined in respect of each of the duplicate samples shall be taken.

2. *Classification.*—(a) *Shelled Groundnuts.*—When it is necessary to determine the percentages of groundnuts of the different types for the determination of the class thereof, duplicate 100-gramme samples shall be hand-picked for the separation of the various types. The percentage of the admixture is determined by weight. The average of the percentages determined in respect of each of the duplicate samples shall be taken.

If the groundnuts contain foreign matter and/or chips, 400 grammes of the groundnuts must first be screened and/or hand-picked for the removal of the foreign matter and/or chips.

Duplicate 100-gramme samples are then taken of such pure screened and/or hand-picked groundnuts, and the class determined in the manner described in this sub-regulation.

Die hitte moet egter altyd so gereël word dat 'n temperatuur van 175° Celsius binne minstens 19 minute en hoogstens 21 minute bereik word. As die verhittingstyd langer duur gee dit te lae resultate en duur dit korter, is die resultate weer te hoog. Die verhitting moet afgesluit word sodra die vereiste temperatuur bereik is. As die voggehalte van die monster besonder hoog is, sal die mengsel skuim en oorkook met die normale metode van verhitting. Onder sulke omstandighede kan die juiste voggehalte die beste bepaal word deur die mengsel vinnig te verhit totdat die olie borrel en dan weer baie min totdat 'n paar kubieke sentimeter water afgedryf is. Daarna kan die gewone verhitting weer toegepas en die oorblywende vog binne die voorgeskrewe verhittingstyd sonder skuimvorming afgedryf word.

Nadat die verhitting afgesluit is, kan 'n geringe geleidelike styging in temperatuur verwag word. 'n Skielike styging of daling van etlike grade in die temperatuur dui aan dat die vlam gedurende die laaste deel van verhitting te skerp was, en die toets moet dan herhaal word. As die water wat oordistilleer, gekleur is, het die grondboontjies waarskynlik aangebrand en moet die toets herhaal word. Moenie die deksel of die termometer afhaal voordat die temperatuur tot 160° C. of laer gedaal het nie. Haal dan die deksel af, haal die termometer en die prop uit en maak die kondenseerbuis los.

Skud alle druppels aan die kante van die maatsilinder af en lees die persentasie vog daarop af. Die lesing word geneem onderkant die laag olie bo-op die water. Lees die resultate tot een-tiende van een persent. Alle toetse moet tweekeer gedoen word en as die verskil tussen die twee lesings nie groter as 0.2 is nie, kan die gemiddelde van die twee lesings as die voggehalte geneem word. As die verskil groter as 0.2 is, moet die toets herhaal word. By gebruik van die apparaat moet gesorg word dat geen voos rubberprop gebruik word nie, dat die maatsilinder voor 'n toets skoon- en drooggemaak word, dat olie nie direk na 'n vorige toets gebruik word nie en dat die kwik kolom in die termometer ongebroke is voordat daar met 'n toets begin word.

Vars olie of olie wat vir geruime tyd nie gebruik is nie, moet vir elke toets gebruik word, en die olie moet in iedere geval verhit word tot 'n temperatuur van sowat 200° C. en dan gelaat word om af te koel voordat dit gebruik word.

2. Vir die doeleindes van hierdie toets beteken—

„olie”, olie vir vogtoetsdoeleindes en moet dit „Epic”-slaai-en-kookolie wees, vervaardig deur die Epic Oil Mills (Pty.), Ltd.

DEEL V.

ALGEMEEN.

1. *Metode om persentasies te bepaal.*—Alle bepalingstense reeds uitdruklik gemeld, moet volgens duplikaatmonsters gedoen en volgens 'n persentasiebasis uitgedruk word. Die gemiddelde van die persentasies wat ten opsigte van elkeen van die duplikaatmonsters bepaal is, moet geneem word.

2. *Klassifikasie.*—(a) *Gedopte grondboontjies.* Wanneer dit nodig is om die persentasies van die verskillende tipes grondboontjies te bepaal ten einde vas te stel tot watter klas grondboontjies hulle behoort, moet duplikaatmonsters van 100 gram elk met die hand uitgesoek word om die verskillende tipes te skei. Die persentasie van die mengsel word volgens gewig bepaal. Die gemiddelde van die persentasies wat ten opsigte van elk van die duplikaatmonsters bepaal is, moet geneem word. As die grondboontjies vreemde voorwerpe en/of stukkie grondboontjies bevat, word 400 gram van die grondboontjies eers gesif en/of met die hand uitgesoek vir die verwydering van die vreemde voorwerpe en/of die stukkie grondboontjies. Duplikaatmonsters van 100 gram elk word dan van sodanige suiwer gesifte en/of met die hand uitgesoekte grondboontjies geneem en die klas bepaal volgens die wyse in hierdie subregulasie beskryf.

(b) *Unshelled Groundnuts*.—When it is necessary to determine the percentages of groundnuts of the different types for the determination of the class thereof, duplicate 400-gramme samples shall be hand-picked for the separation of the various types. The percentage of the admixture is determined by weight. The average of the percentages determined in respect of each of the duplicate samples shall be taken. If the groundnuts contain foreign matter a quantity of groundnuts shall first be screened and/or hand-picked for the removal of the foreign matter.

Duplicate 400-gramme samples are then taken of such pure screened and/or hand-picked groundnuts, and the class determined in the manner described in this sub-regulation.

EXPLANATION.

The count per ounce of the kernels conforming to the requirements for one or other of the grades set out in Part III will be approximately as follows:—

V45.....	45 to 55 kernels per ounce.
V56.....	55 to 65 kernels per ounce.
V67.....	65 to 75 kernels per ounce.
NC56.....	50 to 60 kernels per ounce.
NC67.....	60 to 70 kernels per ounce.
NC78.....	70 to 80 kernels per ounce.

(b) *Ongedopte grondboontjies*: Wanneer dit nodig is om die persentasies van die verskillende tipes grondboontjies te bepaal ten einde vas te stel tot watter klas grondboontjies hulle behoort, moet duplikaatmonsters van 400 gram elk met die hand uitgesoek word om die verskillende tipes te skei. Die persentasie van elke mengsel word volgens gewig bepaal. Die gemiddelde van die persentasies wat ten opsigte van elk van die duplikaatmonsters bepaal is, moet geneem word. As die grondboontjies vreemde voorwerpe bevat, word 'n hoeveelheid van die grondboontjies eers gesif en/of met die hand uitgesoek vir die verwydering van die vreemde voorwerpe. Duplikaatmonsters van 400 gram elk word dan van sodanige suiwer gesifte en/of met die hand uitgesoekte grondboontjies geneem en die klas volgens die wyse in hierdie subregulasie beskryf.

VERDUIDELIKING.

Die telling per ons van die pitte wat voldoen aan die vereistes vir die een of ander van die grade in Deel III genoem, is, naastebly soos volg:—

V45.....	45 tot 55 pitte per ons.
V56.....	55 tot 65 pitte per ons.
V67.....	65 tot 75 pitte per ons.
NC56.....	50 tot 60 pitte per ons.
NC67.....	60 tot 70 pitte per ons.
NC78.....	70 tot 80 pitte per ons.



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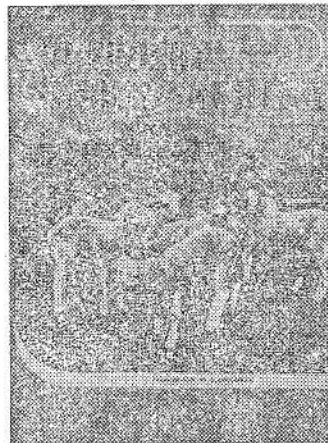
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