



PANDUAN RUJUKAN STANDARD BAGI KELUARAN PERTANIAN DI BAWAH PERATURAN GPL

PENDAHULUAN

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SAYUR



ASAM SUSUR/ASAM PAYA/ROSELLE

English: Roselle

Nama Botani: *Hibiscus sabdariffa* L.

Rujukan Standard

FS 037: 2006

Spesifikasi piawaian dan gred Roselle

KEPERLUAN MINIMA

1. Agak bebas daripada kerosakan disebabkan oleh kecederaan mekanikal, perosak, dan penyakit.
1. Agak bebas daripada kecacatan dan sesuai untuk dimakan oleh manusia.
2. Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GREED

Roselle dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (Maksimum)
Premium	Roselle dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah bebas dari kecacatan atau kerosakan.	Kematangan < 3% Segar < 3% Rosak < 3% Kecacatan < 3% Keseragaman saiz < 5%
1	Roselle dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 3% Segar < 3% Rosak < 3% Kecacatan < 5% Keseragaman saiz < 10%
2	Roselle dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 3% Segar < 3% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%

SAIZ

Bagi Roselle saiz ditentukan oleh berat dalam unit gram (g) samada biji atau tanpa biji seperti mana jadual:

Saiz	Kod	Berbiji (g)	Tanpa biji (g)
Besar	L	>12.0	>6.1
Sedang	M	9.1 – 12.0	5.1 - 6.0
Kecil	S	8.0 – 9.0	4.0 – 5.0



ASPARAGUS

English: Asparagus

Nama Botani: *Asparagus officinalis* L.

Rujukan Standard

FS 093: 2019 – STANDARD ASPARAGUS
HIJAU (*Asparagus officinalis* L.)

KEPERLUAN MINIMA

- Hendaklah segar, bersih dan bebas daripada kecederaan oleh perosak dan/atau penyakit.
- Hendaklah agak bebas daripada kecederaan mekanikal, fisiologi dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ia ditanam.
- Hendaklah mempunyai varieti yang sama dalam satu bungkusan.
- Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GRED

Asparagus hijau dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti Jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Asparagus hijau kualiti terbaik hendaklah: • daripada varieti yang sama • bebas daripada kerosakan dan/atau kecacatan • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan. Ciri-ciri asparagus hijau di dalam gred ini hendaklah: • bentuk yang sempurna dan lurus/tegak • mempunyai hujung pucuk yang padat • keseluruhan sulur berwarna hijau • berbatang lembut.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% mengikut bilangan atau berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi keperluan Gred 1.
1	Asparagus hijau berkualiti baik hendaklah: • daripada varieti yang sama • bebas daripada kecederaan oleh perosak dan/atau penyakit • agak bebas daripada kerosakan mekanikal dan fisiologi • agak bebas daripada kecacatan. Kesan ini hendaklah tidak melebihi 5% daripada keseluruhan permukaan sulur. • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan. Ciri-ciri asparagus hijau di dalam gred ini hendaklah: • bentuk yang sempurna dan agak lurus/tegak • hujung pucuk hendaklah agak padat • 80% daripada sulur berwarna hijau • berbatang lembut dengan sedikit keras dibahagian pangkal.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% mengikut bilangan atau berat yang tidak mencapai keperluan Gred 1 tetapi memenuhi Gred 2.

Asparagus hijau dalam gred ini tidak mencapai spesifikasi Gred Premium dan Gred 1 tetapi memenuhi keperluan minimum di klausa 5:

Asparagus hijau hendaklah:

- daripada varieti yang sama
- bebas daripada kecederaan oleh
- perosak dan/atau penyakit
- agak bebas daripada kerosakan mekanikal dan fisiologi
- agak bebas daripada kecacatan. Kesan ini hendaklah tidak melebihi 10% daripada keseluruhan permukaan sulur
- mempunyai saiz yang seragam dan
- dikekalkan kualiti dan persembahan dalam pembungkusan

Ciri-ciri asparagus hijau di dalam gred ini hendaklah:

- bentuk yang sempurna dan agak lurus/tegak
- hujung pucuk sedikit terbuka
- 60% daripada sulur berwarna hijau
- berbatang lembut dengan sedikit keras di bahagian pangkal.

Kerosakan hendaklah tidak melebihi 5%.

Maksimum 15% mengikut bilangan atau berat yang tidak mencapai keperluan Gred 2 tetapi memenuhi keperluan minimum.

SAIZ

Bagi asparagus hijau, saiz ditentukan oleh diameter dalam unit millimeter (mm) dan panjang dalam unit sentimeter (sm) sepertimana jadual:

Perbezaan panjang asparagus hijau di dalam setiap ikatan hendaklah tidak lebih 5cm.

Saiz	Kod		Diameter (mm)	Panjang (sm)
Lebih besar	XL	1	> 10	≤ 35
Besar	L	2	8 -10	
Sedang	M	3	6 - 8	
Kecil	S	4	3 - 6	



BATANG KELADI

English: Yam stalk/ Taro stem (petioles)

Nama Botani: *Colocasia esculenta* (L.) Schott

Rujukan Standard

ASEAN STANDARD FOR TARO STEM (PETIOLES) (ASEAN Stan 62:2019)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the taro stem shall be:

- fresh in appearance
- characteristic of the variety
- firm
- sound, produce affected by deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests
- practically free of damage caused by pests affecting the general appearance of the produce
- practically free from damage caused by low or high temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign odor and/or taste.

The development and condition of the taro stem shall be such as to enable them:

- to withstand transport and handling and to arrive in satisfactory condition at the place of destination



GREED

CLASSIFICATION

Taro stem are classified into three classes defined below:

i) "Extra" Class

Taro stem in this class shall be of superior quality. They shall be the characteristics of the variety. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, flesh quality, keeping quality, and presentation in the package:

ii) Class I

Taro stem in this class shall be of good quality. They shall be characteristic of the variety. The following defects may be allowed, provided these do not affect the general appearance of the produce, quality, keeping quality and presentation in the package:

- slight defects in shape
- slight defects in color
- slight lack of freshness and
- slight damage on stem, such as cracks, bruises, holes or tears not exceeding 5% of the total surface area of the stem.

iii) Class II

This class includes taro stem which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in above. The following defects, however, may be allowed, provided that the taro stem retain their essential characteristics with regards to the general appearance of the produce, quality, keeping quality and presentation:

- defects in color and damage on stem, such as cracks, bruises, holes or tears not exceeding 10% of the total surface area of the stem.

Quality Tolerances

i) "Extra" Class

Five percent by number or weight of taro stem not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of taro stem satisfying the requirements of the class, but meeting those of Class II or exceptionally, coming within tolerances of that class.

iii) Class II

Ten percent by number or weight of taro stem satisfying neither the requirements of the class, nor the minimum requirements with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size code is determined in diameter accordance with the following table:

Size code	Diameter
1	≥ 5.0
2	$3.0 - < 5.0$
3	< 3.0

For all classes, 10% by weight of taro stem not satisfying the requirements as regards sizing but falling within the size immediately above or below those indicated in Section 3.



BAWANG

English: Onion

Nama Botani: *Allium cepa* L.

Rujukan Standard

ASEAN STANDARD FOR ONION
(ASEAN Stan 23:2011)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the onion must be:

- whole and firm bulb with properly dried outer skin
- dried leaves above the bulb should not be more than 2cm from the shoulder of the bulb
- sound produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests and diseases and damage caused by them affecting the general appearance of the produce
- practically free of mechanical and/or physiological damage
- free of any foreign smell and/or taste
- having a shape, colour and taste characteristic of the variety and/or commercial type
- free of visible sprouts and roots
- practically free of twin bulbs and/or visibly abnormal characteristics

The onion should be harvested and have reached an appropriate degree of development and in accordance with criteria proper to the variety and to the area in which they are grown. The onion should be cured after harvest. The development and condition of the onion must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination



GRED

Onion is classified in three classes defined below:

i) "Extra" Class

Onion in this class must be of superior quality. It must be practically free of defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

This class includes onion, which do not qualify for inclusion in the higher class, but satisfy the minimum requirements specified in Section 2.1 above. Onion in this class must be of good quality. Slight defects of shape, colour, firmness and tears in the outer skin of the bulb may be allowed provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

iii) Class II

This class includes onion, which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. Onion in this class must be of good quality. Defects of shape, colour, firmness and tears in the outer skin of the bulb may be allowed provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

Quality Tolerances

i) "Extra" Class

Five percent by number of onion is not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of onion not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of onion satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the diameter of the equatorial section of the bulb, in accordance with the following table:

Size code	Diameter of bulb (cm)
1	> 9
2	> 7 - 9
3	> 5 - 7
4	3 - 5

For all classes, 10% by number of onion not satisfying the requirements as regards sizing, but falling within the size immediately above or below those indicated in Section 3.

BAYAM

English: Spinach

Nama Botani: *Spinacia oleracea* L.

Rujukan Standard

MS 1362: 2016 Fresh spinach (*Spinacia oleracea* L.) Specification (First revision)



KEPERLUAN MINIMA

In all grades, subject to the special provisions and the tolerances allowed for each grade, the spinach shall be:

- whole
- fresh
- intact
- clean
- practically free from damage and defect
- uniform varietal characteristic
- free of any foreign smell and/or taste
- free from floral stem and
- well-trimmed.



- The washed spinach shall be sufficiently drained and free of abnormal external moisture.
- The spinach has reached an appropriate degree of development in accordance with criteria of the variety and the conditions in which they are grown.
- Pesticide residue, heavy metals and microbial shall not exceed the maximum limits as prescribed under the Food Act 1983 (Act 281) and Food Regulations 1985.
- Handling of the spinach shall comply with the requirements of Food
- Hygiene Regulations 2009 and other relevant public health legislation currently enforced in the country.
- Marketing of spinach shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act141) and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.
- Production of spinach shall comply with the Good Agriculture Practice (GAP) as prescribed in MS 1784, or equivalent.

GRED

The spinach shall be graded as described in Table.

Grade	Requirements	Tolerances
1	Spinach in this grade shall be: • the same variety • fresh • clean • uniform in size and • practically free from damage and defect.	Unfresh not exceeding 5% Damage not exceeding 5% Maximum 10% by weight shall be allowed in each package of produce.
2	Spinach in this grade shall be: • the same variety • fresh • clean • uniform in size and • reasonably free from damage and defect.	Unfresh not exceeding 10% Non-uniform in size not exceeding 10% Damage not exceeding 10% Maximum 15% by weight shall be allowed in each package of produce. Spinach of this grade shall meet the minimum requirements as in Clause 4.

SAIZ

There is no sizing requirement for spinach but each batch shall be uniform in size.



BENDI

English: Lady's finger/ Okra

Nama Botani: *Abelmoschus esculentus* L. Moench.

Rujukan Standard

MS 1230: 2010 (CONFIRMED:2015)

BENDI SEGAR - SPESIFIKASI
(SEMAKAN PERTAMA)

KEPERLUAN MINIMA

- Bendi hendaklah mempunyai ciri keseragaman varieti di dalam setiap bekas.
- Bendi hendaklah berwarna hijau muda hingga hijau, tidak terlalu matang, dirapi kemas dan tidak cacat.
- Bendi hendaklah agak bebas daripada kerosakan, makhluk perosak dan boleh diterima pengguna untuk dimakan.
- Residu racun perosak hendaklah tidak melebihi had maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-peraturan Makanan 1985.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Bendi segar hendaklah digredkan seperti dalam jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Bendi dalam kelas ini hendaklah segar, bersih, matang, dirapi kemas, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 3\%$ Keseragaman saiz $\leq 3\%$ Keseragaman tahap kematangan $\leq 3\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Bendi dalam kelas ini hendaklah agak segar, bersih, matang, dirapi kemas, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan
2	Bendi dalam kelas ini hendaklah agak segar, bersih, matang, dirapi kemas, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz ditentukan oleh panjang bendi seperti dalam jadual.

Kod Saiz		Panjang (sm)
1	XS	Kurang daripada 5
2	S	5 hingga 10
3	M	10 hingga 15
4	L	15 hingga 20
5	XL	melebihi 20



BROKOLI

English: Broccoli

Nama Botani: *Brassica oleracea* var. *Italica*

Rujukan Standard

MS 2618: 2015 – Brokoli segar (*Brassica oleracea* var. *Italica*) – Spesifikasi

KEPERLUAN MINIMA

- Brokoli hendaklah mencapai tahap kematangan komersial.
- Brokoli hendaklah agak bebas daripada kerosakan dan/atau kecacatan dan sesuai untuk dimakan oleh manusia.
- Brokoli telah dibuat perapian kemas dan floret hendaklah dalam keadaan belum membentuk bunga.
- Keperluan bagi residu racun perosak, logam berat, mikroorganisma dan iradiasi hendaklah mematuhi peruntukan yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985; dan Peraturan-Peraturan Iradiasi Makanan 2011.
- Pengeluaran brokoli perlulah mematuhi Amalan Pertanian Baik (APB) seperti
- keperluan MS 1784 dan MS 1784-7 atau setara dengannya.
- Brokoli perlulah dikendali mengikut keperluan di bawah Peraturan-Peraturan Kebersihan Makanan 2009 dan peraturan semasa yang berkaitan dengan kesihatan awam yang dikuatkuasakan di dalam negara.
- Pengeluaran brokoli hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Brokoli segar hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran
Premium	Brokoli hendaklah daripada varieti yang sama, segar, bersih dan padat. Ia hendaklah mempunyai saiz dan kematangan komersial yang seragam. Ia juga hendaklah bebas daripada kecacatan dan/atau kerosakan. Brokoli dalam gred ini hendaklah menepati keperluan Gred 1.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Kematangan komersial $\leq 5\%$ Cacat $\leq 5\%$ Rosak $\leq 5\%$ Maksimum 5% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.
1	Brokoli hendaklah daripada varieti yang sama, segar, bersih dan padat. Ia hendaklah mempunyai saiz dan kematangan komersial yang seragam. Ia juga hendaklah agak bebas daripada kecacatan dan/atau kerosakan. Brokoli dalam gred ini hendaklah menepati Keperluan Gred 2.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Kematangan komersial $\leq 5\%$ Cacat $\leq 10\%$ Rosak $\leq 5\%$ Maksimum 10% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.
2	Brokoli hendaklah daripada varieti yang sama, segar dan bersih. Ia hendaklah mempunyai saiz dan kematangan komersial yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan dan/atau kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Kematangan komersial $\leq 10\%$ Cacat $\leq 10\%$ Rosak $\leq 5\%$ Maksimum 20% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.

SAIZ

Bagi brokoli, saiz ditentukan oleh diameter jambak seperti dalam jadual.

Saiz	Kod		Diameter Jambak (sm)
KECIL	1	S	≤ 10.0
SEDERHANA	2	M	>10.0 - 12.5
BESAR	3	L	>12.5 - 15.0
LEBIH BESAR	4	XL	>15.0



CEKUR MANIS

English: Sweet leaf/ Sweet shoot

Nama Botani: *Sauropus androgynus*

Rujukan Standard

FS 076: 2017 – STANDARD CEKUR
MANIS (*Sauropus androgynus*)

KEPERLUAN MINIMA

- Hendaklah segar dan bersih.
- Hendaklah agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai tahap pembentukan sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai keseragaman saiz dan varieti yang sama dalam satu bungkusan.
- Hendaklah dibuat perapian.
- Hendaklah tidak melebihi 40cm bagi keperluan pasaran.



GRED

Cekur manis dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran dalam setiap lot
Premium	Cekur manis hendaklah: • daripada varieti yang sama; • bebas daripada rosak • dan/atau kecacatan dan dikekalkan kualiti dan • persembahan dalam pembungkusan.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% mengikut berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi Gred 1.
1	Cekur manis hendaklah: • daripada varieti yang sama • agak bebas daripada rosak dan/atau kecacatan dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% mengikut berat yang tidak mencapai keperluan Gred 1 tetapi memenuhi Gred 2.
2	Cekur manis hendaklah: • daripada varieti yang sama • hampir bebas daripada rosak dan/atau kecacatan • dikekalkan kualiti dan persembahan dalam pembungkusan dan • menepati keperluan minimum sebagaimana ditetapkan, tetapi tidak termasuk bagi Gred Premium dan Gred 1.	Rosak hendaklah tidak melebihi 10%. Maksimum 15% mengikut berat yang tidak mencapai keperluan Gred 2 atau keperluan minimum.

SAIZ

Tiada keperluan saiz bagi cekur manis.

CENDAWAN TIRAM

English: Oyster mushroom

Nama Botani: *Lentinus sajor-caju* (Fr.)

Rujukan Standard

MS 2515: 2012 Cendawan tiram segar –
Spesifikasi



KEPERLUAN MINIMA

- Cendawan tiram seharusnya bersih dan agak bebas daripada kecacatan dan kerosakan serta sesuai dan selamat untuk dimakan.
- Cendawan tiram seharusnya dirapi sempurna.
- Cendawan tiram hendaklah terdiri daripada varieti yang sama.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum yang ditetapkan di bawah Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.
- Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 hendaklah dipatuhi.



GRED

Cendawan tiram segar hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Cendawan tiram dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan bebas daripada kecacatan atau kerosakan. Cendawan tiram gred ini hendaklah mencapai Gred 1.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 5\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Cendawan tiram dalam kelas ini hendaklah, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan. Cendawan tiram gred ini hendaklah mencapai Gred 2.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Cendawan tiram dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan kecacatan atau kerosakan yang tidak ketara.	Segar $\leq 10\%$ Keseragaman saiz $\leq 20\%$ Keseragaman tahap kematangan $\leq 10\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 25% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz cendawan tiram ditentukan oleh diameter kelopak seperti dalam jadual. Saiz cendawan tiram seharusnya seragam dalam setiap konsainan. Saiz minimum cendawan tiram ialah 10 mm.

Kod		Diameter (mm)
1	S	< 40
2	M	40 hingga 80
3	L	> 80

CILI

English: Chilli

Nama Botani: *Capsicum annum* L.

Rujukan Standard

MS 894: 2010 (CONFIRMED:2015) CILI
SEGAR - SPESIFIKASI (SEMAKAN
KEDUA)



KEPERLUAN MINIMA

- Cili hendaklah mempunyai ciri keseragaman varieti dalam setiap bungkusan.
- Cili hendaklah segar, bersih, dan masih bertampuk dan bertangkai.
- Cili hendaklah mencapai peringkat kematangan yang mencukupi seperti yang dikehendaki oleh pasaran.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Cili hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Cili dalam kelas ini hendaklah seragam dari segi varieti, saiz dan kematangan. Cili tersebut hendaklah bebas daripada kecacatan dan kerosakan.	Segar $\leq 3\%$ Keseragaman saiz $\leq 3\%$ Kematangan seragam $\leq 3\%$ Kecacatan $\leq 3\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Cili dalam kelas ini hendaklah seragam dari segi varieti, saiz dan kematangan. Cili tersebut hendaklah agak bebas daripada kecacatan dan kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Kematangan seragam $\leq 5\%$ Kecacatan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Cili dalam kelas ini hendaklah seragam dari segi varieti, saiz dan kematangan. Cili tersebut hendaklah agak bebas daripada kecacatan dan kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Kematangan seragam $\leq 10\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz ditentukan oleh panjang cili seperti dalam jadual.

Kod saiz		Panjang (sm)
1	XS	< 7.0
2	S	7.0 – 9.0
3	M	9.0 – 11.0
4	L	11.0 – 13.0
5	XL	> 13.0



CILI SAYUR / LADA BESAR / CILI MANIS / CAPSICUM

English: Capsicum/ Bell Pepper/ Sweet Pepper

Nama Botani: *Capsicum annuum* L. var. *grossum*

Rujukan Standard

MS 1124: 2012 Cili manis segar –
Spesifikasi (Semakan kedua)

KEPERLUAN MINIMA

- Cili manis haruslah bersih dan agak bebas daripada kecacatan dan kerosakan serta sesuai untuk dimakan.
- Cili manis hendaklah masih bertangkai.
- Cili manis hendaklah terdiri daripada varieti yang sama.
- Cili manis hendaklah telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta281) dan Peraturan-Peraturan Makanan 1985, dan Peraturan-Peraturan Kebersihan Makanan 2009.
- Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 hendaklah dipatuhi.



GRED

Cili manis hendaklah digredkan seperti dalam Jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Cili manis dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 5\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Cili manis dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Cili manis dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan kecacatan atau kerosakan yang tidak ketara.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz cili manis ditentukan oleh diameter seperti dalam jadual.

Kod saiz		Diameter (sm)
1	XS	2.0 – 4.0
2	S	4.0 – 6.0
3	M	6.0 – 8.0
4	L	8.0 – 10.0
5	XL	> 10.0



DAUN BAWANG

English: Spring onion

Nama Botani: *Allium fistulosum* L.

Rujukan Standard

FS 075: 2013 – STANDARD DAUN
BAWANG

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- Daun Bawang telah dibuat perapian.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Daun Bawang dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual.

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar, kering, bersih, mempunyai bentuk batang dan daun yang baik. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 3 ≤ 3 ≤ 3 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar, kering, bersih, mempunyai bentuk batang dan daun yang baik. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar, kering, bersih, mempunyai bentuk batang dan daun yang baik. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Daun Bawang, saiz ditentukan oleh panjang dalam unit sentimeter (sm) seperti mana jadual.

Saiz	Kod		Panjang (sm)
KECIL	S	1	< 50
SEDANG	M	2	50 – 60
BESAR	L	3	> 60



DAUN KETUMBAR

English: Coriander/ Chinese parsley

Nama Botani: *Coriandrum sativum* L.

Rujukan Standard

FS 085: 2014 – STANDARD DAUN
KETUMBAR (*Coriandrum sativum* L.)

KEPERLUAN MINIMA

- Agak bebas daripada rosak dan kecacatan.
- Telah dibuat perapian dan panjang akar tidak melebihi 5cm daripada pelepah yang terakhir.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784: Part 7 atau yang setara.
- Sisa racun perosak dan mikrob hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Daun ketumbar dikelaskan kepada dua (2) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kerosakan.	Segar Keseragaman saiz Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah agak bebas daripada kerosakan.	Segar Keseragaman saiz Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 10 ≤ 10

SAIZ

Saiz tidak diperlukan bagi daun ketumbar.

HALIA

English: Ginger

Nama Botani: *Zingiber officinale* Roscoe

Rujukan Standard

MS 1306: 2014 Fresh ginger – Specification
(Second revision)



KEPERLUAN MINIMA

- Ginger shall be fresh, clean, and practically free from damage and generally acceptable and safe for human consumption.
- Rootlets shall be not more than 0.5 cm in length.
- Ginger shall be practically free defect and damage.
- Sprouting shall not be more than 1.0 cm in length.
- Ginger shall be free of any foreign smell and/or taste.
- Ginger shall be free of abnormal external moisture and properly dried if washed, excluding condensation following removal from cold storage.



- The pesticide residue, heavy metals and microbial shall not exceed the maximum limits prescribed by the Food Act 1983 (Act 281) and the Food Regulations 1985.
- Shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act 141) and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.

GRED

Ginger shall be graded as described in table.

Grade	Requirements	Tolerances (maximum)
Premium	Ginger shall be of uniform variety and size, free from defect, damage and sprout.	Defect $\leq$ 5% Damage $\leq$ 3% Sprout $\leq$ 5% Uniform size $\leq$ 5% Maximum 5%, by weight shall be allowed in each package of produce
1	Ginger shall be of uniform variety and size, free from sprout, practically free from defect and damage.	Defect $\leq$ 10% Damage $\leq$ 5% Sprout $\leq$ 10% Uniform size $\leq$ 10% Maximum 15%, by weight shall be allowed in each package of produce
2	Ginger shall be of uniform variety and size, reasonably free from defect, damage and sprouting.	Defect $\leq$ 15% Damage $\leq$ 10% Sprout $\leq$ 15% Uniform size $\leq$ 10% Maximum 20%, by weight shall be allowed in each package of produce

SAIZ

Size is determined by the weight of ginger as in table.

Size code		Weight (g)
1	S	100 to 200
2	M	201 to 300
3	L	> 300



JAGUNG

English: Corn/Maize

Nama Botani: *Zea mays* L.

Rujukan Standard

MS 1229: 2008 JAGUNG MANIS
SEGAR - SPESIFIKASI (ULANGKAJI
PERTAMA)

KEPERLUAN MINIMA

- Jagung manis hendaklah mempunyai ciri-ciri keseragaman varieti di dalam setiap bekas.
- Biji jagung hendaklah berwarna kuning, kuning keemasan atau keputihan dan dari varieti manis.
- Jagung manis hendaklah agak bebas daripada kerosakan, serangga yang mati dan keseluruhannya boleh diterima pengguna untuk dimakan.
- Residu racun makhluk perosak hendaklah tidak melebihi had maksimum residu yang ditetapkan di dalam Akta Makanan Malaysia 1983 (Akta 281) dan Peraturan Makanan Malaysia 1985.



GRED

Jagung manis hendaklah digredkan seperti dalam jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Jagung manis dalam kelas ini hendaklah matang, segar, padat, bersih, dirapi kemas dan seragam dari segi varieti dan saiz. Ia hendaklah bebas daripada sebarang kerosakan.	Segar $\leq 3\%$ Keseragaman saiz $\leq 3\%$ Keseragaman tahap kematangan $\leq 3\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Jagung manis dalam kelas ini hendaklah matang, segar, padat, bersih, dirapi kemas dan seragam dari segi varieti dan saiz. Ia hendaklah agak bebas daripada sebarang kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Jagung manis dalam kelas ini hendaklah matang, segar, padat, bersih, dirapi kemas dan seragam dari segi varieti dan saiz. Ia hendaklah agak bebas daripada sebarang kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz ditentukan oleh panjang dan diameter jagung manis seperti dalam jadual.

Saiz	Kod saiz	Panjang (sm)	Diameter (sm)
KECIL	S	15.0 hingga 17.0	3.5 hingga 4.0
SEDERHANA	M	17.0 hingga 19.0	4.1 hingga 5.0
BESAR	L	Melebihi 19.0	Melebihi 5.00



JAGUNG SAYUR

English: Baby corn

Nama Botani: *Zea mays* L.

Rujukan Standard

MS 2249: 2017 Fresh baby corn

(*Zea mays* L.) - Specification (First revision)

KEPERLUAN MINIMA

- fresh
- clean
- practically free from damage and defect of similar varietal characteristics
- well-trimmed and
- free from abnormal external moisture and any foreign smell.
- Production of baby corn shall comply with the Good Agriculture Practice (GAP) as prescribed in MS 1784 or equivalent.
- Pesticide residue, heavy metals and microbial shall not exceed the maximum limits as prescribed under the Food Act 1983 (Act 281) and Food Regulations 1985.



- Handling of the baby corn shall comply with the requirements of Food Hygiene Regulations 2009 and other relevant public health legislation currently enforced in the country.
- Marketing of baby corn shall comply with the Federal Agricultural Marketing Authority Act 1965 [Act 141] and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.

GRED

Fresh baby corn shall be graded as described in table.

Grade	Specification	Tolerance
Premium	Baby corn shall be: • fresh • clean • matured • well-trimmed • uniform in size and • free from any damage and • defect. Baby corn of this grade shall meet the requirement of Grade 1.	Unfresh not exceeding 3 % Damage not exceeding 3 % Maximum 5 % by number or weight shall be allowed in each lot of produce.
1	Baby corn shall be: • fresh • clean • matured • well-trimmed • uniform in size and • practically free from any • damage and defect. Baby corn of this grade shall meet the requirement of Grade 2.	Unfresh not exceeding 5 % Damage not exceeding 5 % Maximum 10 % by number or weight shall be allowed in each lot of produce.
2	Baby corn shall be: • fresh • clean • matured • well-trimmed • uniform in size and • reasonably free from any damage and defect.	Unfresh not exceeding 10 % Non-uniform maturity not exceeding 10 % Damage not exceeding 5 % Maximum 15 % by number or weight shall be allowed in each lot of produce.

SAIZ

Size is determined by length of the cob of the baby corn. The length of the baby corn should be from 7.0 cm to 12.0 cm.



JERING

English: Jering

Nama Botani: *Archidendron jiringa*

Rujukan Standard

FS 087: 2018 - STANDARD JERING
(*Archidendron jiringa* (Jack) Nielsen)

KEPERLUAN MINIMA

- Hendaklah segar, bersih dan bebas daripada kecederaan oleh perosak dan/atau penyakit.
- Hendaklah dibuat perapian.
- Hendaklah agak bebas daripada kecederaan mekanikal, fisiologi dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ia ditanam.
- Hendaklah mempunyai varieti yang sama dalam satu bungkusan
- Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GRED

Jering dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Jering hendaklah: • daripada varieti yang sama • bebas daripada kerosakan dan/atau kecacatan • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 5% Maksimum 10% mengikut bilangan atau berat yang tidak memenuhi keperluan Gred Premium tetapi memenuhi keperluan Gred 1.
1	Jering hendaklah: • daripada varieti yang sama • agak bebas daripada kerosakan dan/atau kecacatan. • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 8%. Maksimum 15% mengikut bilangan atau berat yang tidak memenuhi keperluan Gred 1 tetapi memenuhi Gred 2.
2	Jering dalam gred ini tidak mencapai spesifikasi Gred Premium dan Gred 1 tetapi memenuhi keperluan minimum di klausa 5: Jering hendaklah: • daripada varieti yang sama • agak bebas daripada kerosakan dan/atau kecacatan. • mempunyai kematangan yang seragam • mempunyai saiz yang seragam • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 10%. Maksimum 15% mengikut bilangan atau berat yang tidak memenuhi keperluan Gred atau keperluan minimum.

SAIZ

Bagi jering, saiz ditentukan oleh berat dalam unit gram (g) seperti jadual :

Saiz	Kod Saiz	Berat (g)
BESAR	L	>30
SEDANG	M	21 – 30
KECIL	S	10 - 20

Bagi semua saiz, kelonggaran saiz yang dibenarkan adalah sebanyak 10% mengikut bilangan atau berat buah yang sepadan dengan saiz yang di atas dan/atau di bawah yang dinyatakan dalam pembungkusan.



KACANG BOTOR/KELISA

English: Four-angled bean

Nama Botani: *Psophocarpus
tetragonolobus* (L) D.C.

Rujukan Standard

FS 053: 2011 – SPESIFIKASI STANDARD
KACANG BOTOR

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan yang dikehendaki oleh pasaran.
- Agak bebas daripada kecacatan dan rosak disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan sesuai untuk dimakan oleh manusia.



GRED

Kacang Botor dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 5 ≤ 5 ≤ 5
1	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 5 ≤ 5 ≤ 5 ≤ 10
2	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Kacang Botor, saiz ditentukan oleh panjang dalam unit sentimeter (sm) seperti mana jadual:

Saiz	Kod		Panjang (sm)
BESAR	L	A	> 20
SEDANG	M	B	15 - 20
KECIL	S	C	12 - 15



KACANG BUNCIS

English: French bean

Nama Botani: *Phaseolus vulgaris* L.

Rujukan Standard

MS 1252: 2009 KACANG BUNCIS SEGAR -
SPESIFIKASI (SEMAKAN PERTAMA)

KEPERLUAN MINIMA

- Kacang buncis hendaklah mempunyai ciri keseragaman varieti di dalam setiap bekas.
- Lengai kacang hendaklah berwarna hijau muda hingga hijau, tidak cacat dan tidak keding (terlalu kurus).
- Kacang buncis hendaklah agak bebas daripada kerosakan, serangga hidup dan mati serta boleh diterima pengguna untuk dimakan.
- Residu racun perosak hendaklah tidak melebihi had maksimum residu yang ditetapkan di dalam Akta Makanan Malaysia 1983 (Akta 281) dan Peraturan Makanan Malaysia 1985.
- Mematuhi Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di dalam Akta 141.



GRED

Kacang buncis dikelaskan kepada tiga gred, bergantung kepada keadaan dan ciri-ciri gred seperti di dalam jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Kacang buncis dalam kelas ini hendaklah segar, bersih, matang, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 3\%$ Keseragaman saiz $\leq 3\%$ Keseragaman tahap kematangan $\leq 3\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasil hendaklah dibenarkan di dalam setiap bungkusan.
1	Kacang buncis dalam kelas ini hendaklah agak segar, bersih, matang, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasil hendaklah dibenarkan di dalam setiap bungkusan.
2	Kacang buncis dalam kelas ini hendaklah agak segar, bersih, matang, seragam dari segi saiz dan bebas daripada sebarang kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasil hendaklah dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz ditentukan oleh panjang kacang buncis seperti dalam jadual.

Saiz	Panjang (sm)
BESAR	> 15
SEDERHANA	10 – 15
KECIL	< 10



KACANG PANJANG

English: Long bean

Nama Botani: *Vigna unguiculata* subsp. *Sesquipedalis*

Rujukan Standard

MS 951: 2003 SPESIFIKASI BAGI
KACANG PANJANG (ULANGKAJI KEDUA)

KEPERLUAN MINIMA

- Agak bebas daripada kerosakan dan kotoran serta sesuai untuk manusia.
- Telah mencapai peringkat kematangan yang mencukupi seperti yang dikehendaki oleh pasaran.
- Residu racun perosak hendaklah tidak melebihi kadar maksimum residu yang ditetapkan di dalam Peraturan Makanan Malaysia 1985.



GRED

Kacang panjang dikelaskan kepada tiga gred, bergantung kepada keadaan dan ciri-ciri gred seperti di dalam jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Kacang panjang dalam kelas ini hendaklah terdiri daripada varieti seragam, segar, bersih, mempunyai saiz dan kematangan seragam. Ia juga hendaklah bebas dari kecacatan atau kerosakan.	Kematangan $\leq 5\%$ Segar $\leq 5\%$ Rosak $\leq 5\%$ Kecacatan $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Jumlah kelonggaran hendaklah tidak melebihi 5% dari segi bilangan di dalam setiap bungkusan.
1	Kacang panjang dalam kelas ini hendaklah terdiri daripada varieti seragam, segar, bersih, mempunyai saiz dan kematangan seragam. Ia juga hendaklah agak bebas dari kecacatan atau kerosakan.	Kematangan $\leq 5\%$ Segar $\leq 5\%$ Rosak $\leq 5\%$ Kecacatan $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Jumlah kelonggaran hendaklah tidak melebihi 10% dari segi bilangan di dalam setiap bungkusan.
2	Kacang panjang dalam kelas ini hendaklah terdiri daripada varieti seragam, segar, bersih, mempunyai saiz dan kematangan seragam. Ia juga hendaklah agak bebas dari kecacatan atau kerosakan.	Kematangan $\leq 10\%$ Segar $\leq 10\%$ Rosak $\leq 10\%$ Kecacatan $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Jumlah kelonggaran hendaklah tidak melebihi 15% dari segi bilangan di dalam setiap bungkusan.

SAIZ

Saiz kacang panjang ditentukan oleh panjang dalam unit sm seperti di dalam jadual:

Saiz	Kod	Panjang (sm)
PANJANG	L	> 50
SEDANG	M	35 – 50
PENDEK	S	< 35



KACANG PANJANG RENEK

English: Dwarf long bean

Nama Botani: *Vigna unguiculata* subsp.
Unguiculata

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual berikut:

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



KACANG SERINDING

English: Butter bean

Nama Botani: *Phaseolus lunatus* L.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual berikut:

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



KACANG SOYA HIJAU

English: Green soy bean

Nama Botani: *Glycine max*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan Peraturan Lembaga Pemasaran Pertanian Persekutuan(Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual berikut:

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



KACANG WANGI

English: Snow pea/sweet pea

Nama Botani: *Pisum sativum* var. *saccharatum*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan(Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual berikut:

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



KAILAN

English: Chinese kale

Nama Botani: *Brassica oleracea* var. alboglabra

Rujukan Standard

MS 1324: 2014 Fresh kailan –
Specification (First revision)

KEPERLUAN MINIMA

- The kailan shall be fresh, clean, well-grown, well-trimmed and practically free from damage and generally acceptable and safe for human consumption.
- The kailan in each container shall be of the same variety.
- The pesticide residue shall not exceed the maximum residue limits prescribed by the Food Act 1983 (Act 281) and the Food Regulations 1985 as well as Food Hygiene Regulations 2009.
- Shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act 141) and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.



GED

Kailan shall be graded as described in table .

Grade	Requirements	Tolerances (maximum)
Premium	Kailan in this class shall be fresh, clean, tender and uniform in size. It shall be free from any deform and damage. Kailan of this grade meeting those of Grade 1.	Fresh $\leq$ 3% Clean $\leq$ 3% Uniform size $\leq$ 5% Deformity $\leq$ 5% Damage $\leq$ 3% Maximum 5% by number or weight shall be allowed in each package of produce.
1	Kailan in this class shall be fresh, clean, tender and uniform in size. It shall be practically free from any deform and damage. Kailan of this grade meeting those of Grade 2.	Fresh $\leq$ 5% Clean $\leq$ 3% Uniform size $\leq$ 10% Deformity $\leq$ 10% Damage $\leq$ 5% Maximum 10% by number or weight shall be allowed in each package of produce.
2	Kailan in this class shall be fresh, clean, tender and uniform in size. It shall be reasonably free from any deform and damage.	Fresh $\leq$ 5% Clean $\leq$ 5% Uniform size $\leq$ 20% Deformity $\leq$ 15% Damage $\leq$ 5% Maximum 20% by number or weight shall be allowed in each package of produce.

SAIZ

No sizing for kailan.

KANGKUNG

English: Water spinach

Nama Botani: *Ipomoea reptans* L. Poir (darat) dan *Ipomoea aquatics* (air)

Rujukan Standard

MS 2617: 2015 Kangkung segar (*Ipomoea reptans* L. Poir. dan *Ipomoea aquatics*)



KEPERLUAN MINIMA

Kangkung hendaklah:

- a) segar
 - b) bersih
 - c) telah dibuat perapian kemas
 - d) agak bebas daripada kerosakan dan/atau kecederaan dan
 - e) mempunyai ciri keseragaman varieti.
-
- Kangkung hendaklah telah mencapai tahap pembentukan yang sesuai mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
 - Keperluan bagi residu racun perosak, logam berat dan mikroorganisma hendaklah mematuhi peruntukan yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.



- Pengeluaran kangkung hendaklah mematuhi Amalan Pertanian Baik (APB) seperti keperluan MS 1784 dan MS 1784-7 atau yang setara dengannya.
- Kangkung hendaklah dikendali mengikut keperluan di bawah Peraturan-Peraturan Kebersihan Makanan 2009 dan peraturan semasa yang berkaitan dengan kesihatan awam yang dikuatkuasakan di dalam negara.
- Pengeluaran kangkung hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.

GRED

Kangkung hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran
1	Kangkung dalam gred ini hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada kecacatan dan kerosakan serta mempunyai saiz yang seragam. Kangkung dalam gred ini hendaklah menepati keperluan Gred 2.	Maksimum 5% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.
2	Kangkung dalam gred ini hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada kecacatan dan kerosakan serta mempunyai saiz yang seragam. Kangkung dalam gred ini hendaklah menepati keperluan Klausu 4.	Tidak segar tidak melebihi 10% Cacat tidak melebihi 10% Rosak tidak melebihi 10% Maksimum 15% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.

SAIZ

Bagi kangkung, pengelasan saiz adalah tidak perlu tetapi hendaklah mempunyai saiz yang seragam.



KANTAN

English: Torch ginger

Nama Botani: *Etlingera elatior* (Jack) R.M. Smith

Rujukan Standard

FS 061: 2014 - STANDARD BUNGA
KANTAN (*Phaeomeria speciosa*)

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan yang dikehendaki oleh pasaran.
- Telah dibuat perapian.
- Batang hendaklah tidak kurang daripada 7cm.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784: Part 7 atau yang setara.
- Sisa racun perosak dan mikrob hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GED

Bunga kantan dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kerosakan.	Segar Keseragaman saiz Kematangan Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 3 ≤ 5 ≤ 5 ≤ 3
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kerosakan.	Segar Keseragaman saiz Kematangan Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 10 ≤ 5 ≤ 5
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kerosakan.	Segar Keseragaman saiz Kematangan Rosak Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 5

SAIZ

Bagi bunga kantan, saiz ditentukan oleh panjang bunga dalam unit sentimeter (sm) atau diameter bunga dalam unit sentimeter (sm) seperti jadual:

Saiz	Kod Saiz		Panjang (sm)	Diameter (sm)
KECIL	S	1	< 10	< 3
SEDANG	M	2	10 - 15	3 – 4.5
BESAR	L	3	> 15	> 4.5



KAUKI

English: Chinese box thorn

Nama Botani: *Lycium chinense* L.

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYURAN BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



KETOLA/PETOLA

English: Angled loofah

Nama Botani: *Luffa acutangula* (L.) Roxb.

Rujukan Standard

MS 2471: 2012 Petola segi segar - Spesifikasi

KEPERLUAN MINIMA

- Petola segi hendaklah terdiri daripada varieti yang sama.
- Petola segi hendaklah bersih dan agak bebas daripada kecacatan dan kerosakan serta sesuai untuk dimakan.
- Segi petola masih segar dan mempunyai warna yang seragam.
- Petola segi telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.
- Tangkai petola segi tidak melebihi 3.0cm.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan Peraturan Makanan 1985 dan Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga, Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Petola segi hendaklah digredkan seperti dalam jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Petola segi dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, segar, bersih dan bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Petola segi dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Petola segi dalam kelas ini hendaklah mempunyai saiz dan kematangan yang seragam, segar, bersih dan kecacatan atau kerosakan yang tidak ketara.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz petola segi ditentukan oleh panjang seperti dalam jadual

Kod saiz		Panjang (sm)
1	S	< 30
2	M	31 – 40
3	L	41 – 50
4	XL	> 50

Bagi keseluruhan pengelasan, kelonggaran satu saiz yang berdekatan adalah 10 % dari segi bilangan dalam satu konsainan.



KUBIS UNGU/MERAH

English: Red cabbage

Nama Botani: *Brassica oleracea* var. capitata f. Rubra

Rujukan Standard

UNECE STANDARD FFV-09 (2020)
Headed cabbages

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the headed cabbages must be:

- Intact; however, headed cabbages may have some of their outer leaves removed
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- fresh in appearance
- practically free from pests
- practically free from damage caused by pests
- free of damage due to frost
- free of abnormal external moisture
- free of any foreign smell and/or taste.



The stem should be cut slightly below the lowest point of leaf growth; the leaves should remain firmly attached, and the cut should be clean.

The development and condition of the headed cabbages must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.

GED

The headed cabbages are classified in two classes, as defined below:

(i) Class I

Headed cabbages in this class must be of good quality. They must be characteristic of the variety and/or commercial type. According to the variety and/or commercial type, they must be compact and have firmly attached leaves and show no signs of floral stem.

Green Savoy cabbages and early cabbages must be properly trimmed, but a number of outer leaves may be left for protection.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- small cracks in the outer leaves
- slight bruises
- light trimming of the outer leaves
- slight discolouration due to frost in case of white and savoy cabbages.

(ii) Class II

This class includes headed cabbages that do not qualify for inclusion in Class I, but satisfy the minimum requirements specified above. The following defects may be allowed, provided the headed cabbages retain their essential characteristics as regards the quality, the keeping quality and presentation:

- cracks in the outer leaves
- bruises
- trimming of the outer leaves
- less compact
- discolouration due to frost in case of white and savoy cabbages.

The total length of the stem and floral stem should not exceed two-thirds of the length of the head.

Quality tolerances

(i) Class I

A total tolerance of 10 per cent, by number or weight, of headed cabbages not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(ii) Class II

A total tolerance of 10 per cent, by number or weight, of headed cabbages satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

SAIZ

Size is determined by weight of the unit. The minimum weight shall be 350 g per unit for early cabbages and 500 g per unit for other headed cabbages. To ensure uniformity in size for produce in the same package, the weight of the heaviest head must not be more than double the weight of the lightest head. When the weight of the heaviest head is equal to or less than 2 kg the difference between the heaviest and the lightest head may be up to 1 kg. Uniformity in size is compulsory for headed cabbages presented in packages. The size requirements shall not apply to miniature produce.



KUBIS BULAT

English: Cabbage

Nama Botani: *Brassica oleracea* var. capitata Linn

Rujukan Standard

MS 892: 2017 Kubis bulat segar (*Brassica oleracea* var. capitata Linn) – Spesifikasi (Semakan ketiga)

KEPERLUAN MINIMA

Kubis bulat hendaklah:

- a) segar
 - b) bersih
 - c) telah dibuat perapian kemas
 - d) mempunyai ciri keseragaman varieti
 - e) telah mencapai tahap pembentukan yang sesuai mengikut ciri varieti dan
 - f) agak bebas daripada kerosakan dan/atau kecacatan dan sesuai untuk dimakan oleh manusia.
- Residu racun perosak, logam berat dan mikroorganisma hendaklah mematuhi peruntukan yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.
 - Kubis bulat hendaklah dikendali mengikut keperluan di bawah Peraturan-Peraturan Kebersihan Makanan 2009 dan peraturan semasa yang berkaitan dengan kesihatan awam yang dikuatkuasakan di dalam negara.



- Pemasaran kubis bulat hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.
- Pengeluaran kubis bulat perlulah mematuhi Amalan Pertanian Baik (APB) seperti keperluan MS 1784 atau setara dengannya

GRED

Kubis bulat dikelaskan kepada tiga gred, bergantung kepada keadaan dan ciri gred seperti di dalam jadual.

Gred	Keperluan	Kelonggaran
Premium	Kubis bulat hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz yang seragam dan • bebas daripada kecacatan dan/atau kerosakan.	Maksimum 5% dari segi bilangan atau berat di dalam setiap bungkusan tidak menepati keperluan gred ini tetapi hendaklah menepati keperluan Gred 1.
1	Kubis bulat hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz yang seragam dan • hampir bebas daripada kecacatan dan/atau kerosakan.	Tidak segar tidak melebihi 5% Kerosakan tidak melebihi 5% Maksimum 10% dari segi bilangan atau berat di dalam setiap bungkusan tidak menepati keperluan gred ini tetapi hendaklah menepati keperluan Gred 2.
2	Kubis bulat hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz yang seragam dan • agak bebas daripada kecacatan dan/atau kerosakan.	Tidak segar tidak melebihi 10% Kerosakan tidak melebihi 10% Maksimum 15% dari segi bilangan atau berat di dalam setiap bungkusan tidak menepati keperluan gred ini tetapi memenuhi keperluan minimum.

SAIZ

Saiz kubis bulat ditentukan oleh berat seperti dalam jadual.

Saiz	Kod saiz	Berat (kg)
KECIL	S	0.3 - 0.5
SEDERHANA	M	> 0.5 - 1.2
BESAR	L	> 1.2

Kubis bulat yang paling berat dalam mana-mana bungkusan tidak boleh melebihi dua kali ganda berat kubis bulat yang paling ringan.



KUBIS CINA/KUBIS PANJANG

English: Chinese cabbage

Nama Botani: *Brassica chinensis* L. ssp. *pekinensis*

Rujukan Standard

MS 1393: 1996 SPECIFICATION FOR FRESH CHINESE CABBAGE (HEAD TYPE)

KEPERLUAN MINIMA

- The unit of trading be in kilogrammes.
- Cabbage must be carefully harvested and at the appropriate stage of growth.
- Pesticide residue in heads of cabbage shall not exceed the Maximum Residue Limits as prescribed in the current Malaysian Food Regulations.
- Cabbage shall be whole, fresh, having similar varietal characteristics, uniform colour and free from soft rot.



GRED

There shall be three grades in each type of cabbage (3.1), namely grade A, grade B and grade C according to the appearance, quality and condition as prescribed in table.

Grade	Requirements	Tolerances
A	The heads shall be firm, not withered or puffy, not burst, free from black rot and free from damage. The heads shall be well-trimmed. The stem shall be cut to 5 mm or less below the wrapper leaves.	In each container, not more than a total of 5% by count of the heads may fail to meet the requirements of the grade, but meeting the requirements of the next lower grade.
B	The heads shall be reasonably firm, reasonably clean, not withered or puffy; not burst, reasonably free from black rot and free from damage. The heads shall be well-trimmed. The stems shall be cut to 5 mm or less below the wrapper leaves.	In each container, not more than a total of 5% by count of the heads may fail to meet the requirements of the grade but meeting the requirements of the next lower grade.
C	Heads of cabbage falling under this grade shall consist of cabbage which does not conform to the requirements of either grade A or grade B but must meet the general requirements.	

SAIZ

Cabbage of the same grade classified according to clause 5.1, shall be classified into the various sizes based on their weights. The size classification of the heads of cabbage shall meet the requirements as stated in table.

Type	Size	Weight of head (trimmed) kg	Tolerance
Oval	Extra large Large Medium Small	5.1 to 8.0 2.1 to 5.0 1.3 to 2.0 0.6 to 1.2	Not more than a total of 10% by count of the heads may vary from the size specifications Of which the weight shall not be more than 5 % either above or below the weight specified.
Flat- topped	Large Medium Small	1.9 to 3.00 1.00 to 1.8 0.4 to 0.9	
Cylindrica	Large Medium Small	2.1 to 3.2 1.1 to 2.00 0.5 to 1.00	



KUCAI

English: Chinese chives

Nama Botani: *Allium tuberosum*

Rujukan Standard

FS 059: 2013 - STANDARD KUCAI

KEPERLUAN MINIMA

- Telah mencapai peringkat kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, fisiologi, perosak atau penyakit dan selamat untuk dimakan.
- Telah dibuat perapian.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Kucaï dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. la juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 3 ≤ 3 ≤ 3 ≤ 5
1	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. la juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 5 ≤ 5 ≤ 10
2	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. la juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 10 ≤ 10

SAIZ

Bagi Kucai, saiz ditentukan oleh panjang dalam unit sentimeter (sm) sepertimana jadual:

Saiz	Kod saiz		Panjang (sm)
KECIL	S	1	< 30
SEDANG	M	2	30 – 40
BESAR	L	3	> 40

KUNDUR

English: Wax gourd/Winter melon

Nama Botani: *Benincasa hispida*

Rujukan Standard

FS 086: 2017 - STANDARD KUNDUR

(*Benincasa hispida* syn. *Cerifera savi*)



KEPERLUAN MINIMA

- Hendaklah segar, bersih dan bebas daripada kecederaan oleh perosak dan/atau penyakit.
- Hendaklah agak bebas daripada kecederaan mekanikal, fisiologi dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ia ditanam.
- Hendaklah mempunyai varieti yang sama dalam satu bungkusan.
- Hendaklah bertangkai tidak melebihi 3cm.
- Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GRED

Kundur dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti jadual.

Gred	Spesifikasi	Kelonggaran
Premium	Kundur hendaklah: • daripada varieti yang sama • bebas daripada kerosakan dan/atau kecacatan • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% mengikut bilangan atau berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi keperluan Gred 1.
1	Kundur hendaklah: • daripada varieti yang sama • agak bebas daripada kerosakan dan/atau kecacatan. Kesan ini hendaklah tidak melebihi 5% daripada keseluruhan permukaan kulit. • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% mengikut bilangan atau berat yang tidak mencapai keperluan Gred 1 tetapi memenuhi Gred 2.

2

Kundur hendaklah:

- daripada varieti yang sama
- hampir bebas daripada kerosakan dan/atau kecacatan.

Kesan ini hendaklah tidak melebihi 10% daripada

keseluruhan permukaan kulit

- mempunyai kematangan yang seragam
- mempunyai saiz yang seragam dikekalkan kualiti dan persembahan dalam pembungkusan; dan
- menepati keperluan minimum sebagaimana ditetapkan dalam Klausula 4, tetapi tidak termasuk bagi Gred Premium dan 1.

Kerosakan hendaklah tidak melebihi 10%.

Maksimum 15% mengikut bilangan atau berat yang tidak mencapai keperluan Gred atau keperluan minimum.

SAIZ

Bagi kundur, saiz ditentukan oleh berat dalam unit (kg) sepertimana jadual:

Saiz	Kod	Kundur panjang (kg)	Kundur bulat (kg)
Lebih besar	XL	> 9.0	> 4.5
Besar	L	> 6.0 – 9.0	> 3.0 - 4.5
Sedang	M	> 3.0 – 6.0	> 1.5 – 3.0
Kecil	S	≤ 3.0	≤ 1.5



KUNYIT

English: Turmeric

Nama Botani: *Curcuma longa* Linn.

Rujukan Standard

FS 084: 2014 STANDARD KUNYIT
(*Curcuma domestica*)

KEPERLUAN MINIMA

- Telah dibuat perapian sempurna.
- Agak bebas daripada rosak dan kecacatan.
- Rizom hendaklah kering, sempurna bentuk dan mengikut varieti
- Rizom hendaklah tidak kurang dari 3 cm.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784: Part 7 atau yang setara.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Kunyit dikelaskan kepada tiga (3) gred, bergantung pada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar, bersih dan mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kecacatan Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 3 ≤ 5 ≤ 5 ≤ 3
1	la hendaklah daripada varieti yang sama, segar, bersih dan mempunyai saiz yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kecacatan Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 10 ≤ 5 ≤ 5
2	la hendaklah daripada varieti yang sama, segar, bersih dan mempunyai saiz yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan	Segar Keseragaman saiz Kecacatan Rosak Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 10

SAIZ

Bagi kunyit lerai (jejari) saiz ditentukan oleh panjang dalam unit sentimeter (cm) manakala bagi kunyit perdu saiz ditentukan oleh berat dalam unit gram (g) seperti jadual:

Saiz	Kod		Panjang (sm) (lerai)	Berat (g) (perdu)
KECIL	S	1	< 5	< 40
SEDANG	M	2	5 - 8	40 – 80
BESAR	L	3	> 8	> 80

LABU

English: Pumpkin

Nama Botani: *Cucurbita moschata*
Duchesne

Rujukan Standard

MS 2403: 2011 LABU SEGAR

(CUCURBITA MOSCHATA) – SPESIFIKASI



KEPERLUAN MINIMA

- Labu hendaklah bersih dan agak bebas daripada kerosakan serta sesuai untuk dimakan.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-peraturan Makanan 1985 serta Peraturan-peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GED

Labu hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Labu dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam serta segar, bersih dan bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Labu dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Labu dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kerosakan $\leq 10\%$ Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz labu ditentukan oleh berat seperti dalam jadual.

Kod saiz		Berat (g)
1	XS	< 500
2	S	500 – 1,000
3	M	1,000 – 1,500
4	L	1,500 – 2,000
5	XL	> 2,000



LENGKUAS

English: Galangale

Nama Botani: *Alphinia galanga* (L.) Willd

Rujukan Standard

FS 074: 2013 STANDARD LENGKUAS

KEPERLUAN MINIMA

- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- Telah membuat perapian dengan membuang akar, tunas dan batang yang tidak mempunyai rizom.
- Batang dipotong tidak melebihi 8 cm.
- Tidak melebihi 3 batang dalam setiap keratan rizom.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Lengkuas dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Matang dan mempunyai saiz yang agak seragam. Ia hendaklah bebas daripada kerosakan dan kecacatan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Matang dan mempunyai saiz yang agak seragam. Ia hendaklah hampir bebas daripada kerosakan dan kecacatan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Matang dan mempunyai saiz yang agak seragam. Ia hendaklah agak bebas daripada kerosakan dan kecacatan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 20% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 10 ≤ 10

SAIZ

Bagi Lengkuas, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual:

Saiz	Kod		Berat (g)
KECIL	S	1	50 – 100
SEDANG	M	2	> 100 – 200
BESAR	L	3	> 200



LIK

English: Leek

Nama Botani: *Allium ampeloprasum*
var. porrum

Rujukan Standard

UNECE STANDARD FFV-21 (2017) -
LEEKs

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the leeks must be:

- Intact (this requirement does not apply, however, to roots and ends of leaves which may be cut)
- Sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- Clean, practically free of any visible foreign matter; however, the roots may have remnants of soil adhering to them and traces of soiling within the sheathed part are allowed
- fresh in appearance, with wilted or withered leaves removed
- practically free from pests
- practically free from damage
- caused by pests
- not running to seed



- free of abnormal external moisture
- free of any foreign smell and/or taste.

When the leaves are cut, they must be neatly cut. The development and condition of the leeks must be such as to enable them:

- To withstand transportation and handling
- To arrive in satisfactory condition at the place of destination.

GRED

Leeks are classified in two classes, as defined below:

(i) Class I

Leeks in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The white to greenish white part of the leeks must represent at least one-third of the total length of the sheathed part. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight superficial and dry damage on not more than two leaves
- slight bruising on the leaves
- slight damage caused by thrips on the leaves

(ii) Class II

This class includes leeks that do not qualify for inclusion in Class I but satisfy the minimum requirements specified above. The following defects may be allowed, provided the leeks retain their essential characteristics as regards the quality, the keeping quality and presentation:

- slight superficial and dry damage
- slight bruising
- damage caused by thrips
- slight traces of rust on the leaves
- slight brownish discoloration due to low temperatures
- a tender flowering stem, provided that it is enclosed within the sheathed part.

Quality tolerances

(i) Class I

A total tolerance of 10 per cent, by number or weight, of leeks not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(ii) Class II

A total tolerance of 10 per cent, by number or weight, of leeks satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

SAIZ

Size is determined by the diameter measured at right angles to the longitudinal axis in the middle of the sheathed part. To ensure uniformity in size, the diameter of the largest leek in the same bundle or package must not be more than twice the diameter of the smallest leek. Uniformity in size is compulsory for Class I.

Size Tolerance

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of leeks not satisfying the requirements as regards sizing is allowed.



LOBAK MERAH

English: Carrot

Nama Botani: *Daucas carota* L.

Rujukan Standard

UNECE STANDARD FFV-10 (2017) -
CARROTS

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the carrots must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded

clean, that is to say:

- practically free of any visible foreign matter, if they are washed
- practically free of excess dirt and impurities if they are not washed
- practically free from pests
- practically free from damage caused by pests
- firm
- not forked, free of secondary roots
- not woody
- not running to seed
- free of abnormal external moisture i.e. sufficiently dried after washing
- free of any foreign smell and/or taste.

In case of topped carrots the leaves must be evened off or cut off at the top of the root. The development and condition of the carrots must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.



GREED

Carrots are classified in three classes, as defined below:

(i) "Extra" Class

Carrots in this class must be of superior quality and washed. They must be characteristic of the variety or the varietal type.

The roots must be:

- smooth
- fresh in appearance
- regular in shape
- free of fissures
- free of bruises and cracks
- free of damage due to frost
- free of green or violet/purple tops.

If presented with leaves, leaves must be fresh in appearance.

They must be free from defects with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Carrots in this class must be of good quality. They must be characteristic of the variety or the varietal type. The roots must be:

- fresh in appearance.

If presented with leaves, leaves must be fresh in appearance.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- slight defects in colouring
- slight healed cracks
- slight cracks or fissures due to handling or washing
- green or violet/purple tops up to:
 - 1 cm long for roots not exceeding 10 cm in length
 - 2 cm for other roots.

(iii) Class II

This class includes carrots that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The following defects may be allowed, provided the carrots retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- healed cracks not reaching the heart
- cracks or fissures due to handling or washing
- green or violet/purple tops up to:
 - 1 cm long for roots not exceeding 10 cm in length
 - 2 cm for other roots.

Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of carrots not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality. In addition, a total tolerance of 5 per cent by weight of carrots having a slight trace of green or violet/purple colouring at the top is allowed.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of carrots not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay. However, broken carrots and/or carrots that have lost their tips are excluded from that tolerance. In addition, a total tolerance of 10 per cent by weight of broken carrots and/or carrots that have lost their tips is allowed.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of carrots satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay. In addition, a total tolerance of 25 per cent by weight of broken carrots is allowed

SAIZ

Size is determined by the maximum diameter or the weight of the root when without foliage. The minimum size shall be:

- 10 mm when sizing is by diameter and 8 g when sizing is by weight in the case of early carrots and small-root varieties
- 20 mm when sizing is by diameter and 50 g when sizing is by weight in the case of main-crop carrots and large-root varieties.

The maximum size shall be:

- 40 mm when sizing is by diameter and 150 g when sizing is by weight in the case of early carrots and small-root varieties
- 45 mm when sizing is by diameter and 200 g when sizing is by weight in the case of main-crop carrots and large-root varieties of the "Extra" Class.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

- 20 mm or 150 g for Class "Extra"
- 30 mm or 200 g for Class I.

Size tolerances

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of carrots not satisfying the requirements as regards sizing is allowed.



LOBAK PUTIH

English: Radish

Nama Botani: *Raphanus sativus* L.

Rujukan Standard

FS 072: 2014 STANDARD LOBAK PUTIH
(*Raphanus sativus*)

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan.
- Segar, bersih dan telah dibuat perapian dengan sempurna.
- Membuat perapian dengan memotong bahagian daun tidak melebihi 5cm dari paras bahu umbisi serta membuang akar rerambut.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784:Part 7 atau yang setara.
- Sisa racun perosak dan mikrob hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan- Peraturan Makanan 1985.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Lobak putih dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 3 ≤ 5 ≤ 5 ≤ 5 ≤ 3
1	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 10 ≤ 5 ≤ 10 ≤ 5
2	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 15 ≤ 5

SAIZ

Bagi lobak putih, saiz ditentukan oleh panjang dalam unit sentimeter (sm) atau diameter (sm) seperti jadual:

Saiz	Kod		Panjang (sm)	Diameter (sm)
KECIL	S	1	< 30	< 5
SEDANG	M	2	30 – 35	5 – 7
BESAR	L	3	> 35	> 7



MAMAN

English: Cleome

Nama Botani: *Cleome gynandra* L.

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYUR
BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



MENGKUDU

English: Morinda

Nama Botani: *Morinda citrifolia* L.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut;

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



PARSLI

English: Parsley

Nama Botani: *Petroselinum crispum*
var. tuberosum

Rujukan Standard

FS079:2014 - STANDARD PARSLI
(*Petroselinum crispum*)

KEPERLUAN MINIMA

- Segar, bersih dan telah dibuat perapian sempurna.
- Agak bebas daripada kerosakan.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784: Part 7 atau yang setara.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Parsli dikelaskan kepada dua (2) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kerosakan.	Segar Keseragaman saiz Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 3 ≤ 5 ≤ 3
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah agak bebas daripada kerosakan.	Segar Keseragaman saiz Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 10 ≤ 5

SAIZ

Saiz tidak diperlukan bagi standard parsli.



PEGAGA

English: Indian pennywort

Nama Botani: *Centella asiatica* L.

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYUR BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan.. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



PERIA

English: Bitter Gourd

Nama Botani: *Momordica charantia* L.

Rujukan Standard

MS 1146: 1989 SPECIFICATION FOR
FRESH BITTER GOURD

KEPERLUAN MINIMA

- Bitter gourd shall be light green to green in colour, naturally glossy, well formed, firm and not over- mature.
- Bitter gourd shall be reasonably free from decay, diseases, living and dead insects, and fit for human consumption.
- The unit of trading shall be in kilogrammes



GRED

Each size of fresh bitter gourd shall be graded into three grades according to their general appearance, quality and physical characteristics as follows:

i) Grade A

Consists of bitter gourds of similar varietal characteristics which are uniformly coloured, well formed, not over-mature, fresh, firm and free from decay, damages, and dirt or other foreign materials. Incident to proper grading and handling, a tolerance of 5% by count for defects and 5% by count for off-size in any lot is allowable but must conform to the requirements of the next lower grade.

ii) Grade B

Consists of bitter gourds of similar varietal characteristics which are uniformly coloured, fairly well formed, not over-mature, fresh, firm, reasonably free from decay, damages, and dirt or other foreign materials. Incident to proper grading and handling, a tolerance of 5% by count for defects and 10% by count for off- size in any lot is allowable but must conform to the requirements of the next lower grade.

iii) Grade C

Consists of bitter gourds of similar varietal characteristics which are uniformly coloured, not seriously deformed, not over-mature, fresh, firm, reasonably free from decay, damages, and dirt or other foreign materials. Incident to proper grading and handling, a tolerance of 10% by count for defects and 15% by count for off- size in any lot is allowable.

SAIZ

Fresh bitter gourd shall be classified into three sizes.

- Large. Bitter gourd whose length is above 30 cm and whose diameter is above 6.5 cm.
- Medium. Bitter gourd whose length is between 25 cm and 30 cm and whose diameter is between 6 cm and 6.5 cm.
- Small. Bitter gourd whose length is below 25 cm and whose diameter is below 6 cm.



PETAI

English: Twisted cluster bean

Nama Botani: *Parkia speciosa*

Rujukan Standard

FS 062: 2014 - STANDARD PETAI
(*Parkia speciosa*)

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan yang dikehendaki oleh pasaran dan bertangkai.
- Setiap papan mestilah mengandungi tidak kurang dari 9 mata (biji).
- Papan hendaklah bebas daripada buku (gugus) dalam setiap pembungkusan.
- Agak bebas daripada kerosakan dan kecacatan.
- Setiap pengeluaran mestilah mematuhi keperluan amalan pertanian baik berdasarkan MS 1784 dan MS 1784: Part 7 atau yang setara.
- Sisa racun perosakdan mikrob hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan peraturan- peraturan Makanan 1985.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965(Akta141) dan Peraturan-Peraturan Lembaga Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GREED

Petai dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan	≤ 5 ≤ 5 ≤ 5 ≤ 5 ≤ 3
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan	≤ 5 ≤ 10 ≤ 5 ≤ 5 ≤ 3
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Segar Keseragaman saiz Kematangan Kecacatan Rosak Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan	≤ 10 ≤ 15 ≤ 10 ≤ 10 ≤ 5

SAIZ

Bagi petai, saiz ditentukan oleh bilangan mata (biji) dalam satu papan seperti jadual:

Saiz	Kod		Bilangan mata (biji)
KECIL	S	1	< 10
SEDANG	M	2	10 - 13
BESAR	L	3	> 13



PUCUK PAKU

English: Fern shoot

Nama Botani: *Diplazium esculentum*

Rujukan Standard

FS 090: 2016 - STANDARD UMUM SAYUR
BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



PUDINA

English: Mint

Nama Botani: *Mentha sp.*

Rujukan Standard

FS 090: 2016 - STANDARD UMUM SAYUR
BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



REBUNG

English: Bamboo shoot

Nama Botani: *Bambusa spp.*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri- ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



REMAYUNG

English: Ceylon spinach

Nama Botani: *Basella alba* L.

Rujukan Standard

FS 090: 2016 - STANDARD UMUM SAYUR
BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



SADERI

English: Celery

Nama Botani: *Apium graveolens* L.

Rujukan Standard

FS 088: 2016 – STANDARD SADERI

(*Apium graveolens* L.var.dulce (Mill.DC.)

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah dibuat perapian.
- Hendaklah mempunyai sekurang-kurangnya 5 pelepah dalam setiap batang.
- Hendaklah mematuhi Peraturan- Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Saderi dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Saderi dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Saderi dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Saderi dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Bagi Saderi, saiz ditentukan oleh berat dalam unit gram (g) seperti jadual:

Saiz	Kod	Berat (g)
LEBIH BESAR	XL	> 600
BESAR	L	401 - 600
SEDANG	M	201 - 400
KECIL	S	100 - 200



SALAD BULAT

English: Head lettuce

Nama Botani: *Lactuca sativa* L.

Rujukan Standard

MS 1361 : 1994 SPECIFICATION FOR
FRESH HEAD LETTUCE

KEPERLUAN MINIMA

- The fresh head lettuce shall be of the colour and characteristic of the variety concerned.
- Fresh lettuce shall be reasonably free from decay, damage, living and dead insects, and generally acceptable for human consumption.

GRED

The fresh head lettuce shall be graded into two grades, namely, Grade A and Grade B, according to the appearance, quality and condition as prescribed in table.

Grade	Requirements	Tolerances
A	Grade A consists of heads of lettuce of similar varietal characteristics which are of fairly uniform in size, fresh, green, firm, not burst or split and free from doubles, tipburn, sunburn, broken midribs, damage and discolouration. Each head shall be well-trimmed and free from dirt. Each head shall be trimmed so that there are not more than 4 wrapper leaves	In each container not more than 5% by count shall be below the requirements specified for the grade, but meeting the requirements of the next lower grade.
B	Grade B consists of heads of lettuce of similar varietal characteristics which are of fairly uniform in size, fresh, green, firm, not burst or split and free from doubles, tipburn, sunburn, broken midribs, damage and discolouration. Each head shall be well-trimmed and free from dirt.	



SAWI

English: Mustard

Nama Botani: *Brassica* sp.

Rujukan Standard

MS 1323: 2008 SAWI SEGAR -
SPESIFIKASI (SEMAKAN PERTAMA)



KEPERLUAN MINIMA

- Sawi hendaklah segar, mempunyai ciri keseragaman varieti yang ditetapkan.
- Sawi hendaklah ditanam dengan baik, perapian dilakukan dengan kemas, bebas daripada kerosakan atau kecederaan, serangga yang hidup dan mati, dan boleh diterima pengguna untuk dimakan.
- Residu racun makhluk perosak hendaklah tidak melebihi kadar maksimum residu yang ditetapkan di dalam Akta Makanan Malaysia 1983 (Akta 281) dan Peraturan-peraturan Makanan Malaysia 1985.



GRED

Sawi segar hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Sawi dalam kelas ini hendaklah dirapi kemas, segar, bersih, tegar dari segi varieti dan saiz. Ia hendaklah bebas daripada sebarang kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Perapian kemas $\leq 5\%$ Kerosakan $\leq 5\%$ Tegar $\leq 5\%$ Maksimum 5% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.
1	Sawi dalam kelas ini hendaklah dirapi kemas, segar, bersih, tegar dari segi varieti dan saiz. Ia hendaklah agak bebas daripada sebarang kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Perapian kemas $\leq 10\%$ Kerosakan $\leq 5\%$ Tegar $\leq 5\%$ Maksimum 10% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.
2	Sawi dalam kelas ini hendaklah dirapi kemas, segar, bersih, tegar dari segi varieti dan saiz. Ia hendaklah agak bebas daripada kecacatan dan kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Perapian kemas $\leq 10\%$ Kerosakan $\leq 10\%$ Tegar $\leq 10\%$ Maksimum 15% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan.

SAIZ

Tiada saiz.



SELADA AIR

English: *Watercrest*

Nama Botani: *Nasturtium officinale*

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYUR
BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



SENGKUANG

English: Yam bean

Nama Botani: *Pachyrrhizus tuberosus* (L)

Rujukan Standard

FS057: 2011 SPESIFIKASI STANDARD
SENGKUANG

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak disebabkan oleh kecederaan mekanikal, perosak atau penyakit.
- Agak bebas daripada kecacatan dan sesuai untuk dimakan oleh manusia.
- Telah dibuat perapian dengan sempurna.



GRED

Sengkuang dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 5 ≤ 5 ≤ 5 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi sengkuan, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual berikut:

Saiz	Kod		Berat (gram)
BESAR	L	A	> 750
SEDANG	M	B	501 - 750
KECIL	S	C	400 - 500



SERAI

English: Lemon grass

Nama Botani: *Cymbopogon citratus*

Rujukan Standard

FS 073: 2013 – STANDARD SERAI

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- Telah membuat perapian dengan membuang akar dan kelopak yang rosak.
- Bahagian pangkal akar hendaklah tidak melebihi 1.0 cm daripada pelepah bawah terakhir.
- Panjang serai tidak melebihi 40cm.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Sengkuang dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Keseragaman saiz Kecacatan Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 3 ≤ 3 ≤ 5 ≤ 5
1	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Keseragaman saiz Kecacatan Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 5 ≤ 5 ≤ 5
2	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Keseragaman saiz Kecacatan Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Serai, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual:

Saiz	Kod		Berat (g)
KECIL	S	1	≤ 25
BESAR	L	2	> 25



TAUGEH

English: Bean sprout

Nama Botani: *Vigna radiata* (L.)

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 200 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut;

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



TERATAI

English: Lotus root

Nama Botani: *Nelumbo nucifera*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 200 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter

TERUNG

English: Brinjal/eggplant

Nama Botani: *Solanum melongena* L.

Rujukan Standard

MS 2423: 2011 Terung segar - Spesifikasi



KEPERLUAN MINIMA

- Terung hendaklah bersih dan agak bebas daripada kecacatan dan kerosakan serta sesuai untuk dimakan.
- Terung telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.
- Terung masih bertangkai tidak melebihi panjang 3.0 cm.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 dan Peraturan-Peraturan Kebersihan Makanan 2009.
- Sisa racun perosak, logam berat dan mikroorganisma hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 dan Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan - Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Terung hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Terung dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, segar, bersih dan bebas daripada kecacatan atau kerosakan.	Segar $\leq 3\%$ Keseragaman saiz $\leq 5\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 3\%$ Kerosakan $\leq 3\%$ Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
1	Terung dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 5\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 5\%$ Kecacatan $\leq 5\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.
2	Terung dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Segar $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Keseragaman tahap kematangan $\leq 10\%$ Kecacatan $\leq 10\%$ Kerosakan $\leq 5\%$ Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.

SAIZ

Saiz terung panjang

Kod		Berat (g)
1	XS	< 10
2	S	11-20
3	M	21-30
4	L	31-40
5	XL	>40

Saiz terung bulat

Kod		Berat (g)
1	XS	< 50
2	S	51-100
3	M	100-150
4	L	151-200
5	XL	>200

Bagi keseluruhan pengelasan,
kelonggaran saiz adalah 10 % dari
segi bilangan.



TERUNG PEPARU MINI

English: Mini brinjal/mini eggplant

Nama Botani: *Solanum melongena* L.

Rujukan Standard

FS 054: 2011 SPESIFIKASI STANDARD
TERUNG PEPARU MINI

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan sesuai untuk dimakan oleh manusia.
- Masih bertampuk.



GRED

Terung dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Terung, saiz ditentukan oleh panjang dalam unit sentimeter (sm) sepertimana jadual:

Saiz	Kod saiz		Panjang (sm)
BESAR	L	A	>15
SEDANG	M	B	10.1 - 15.0
KECIL	S	C	8.0 - 10.0



TIKE/SENGKUANG CINA

English: Water chestnut

Nama Botani: *Eleocharis dulcis*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	la hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	la hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut;

- Ukuran berat
- Ukuran panjang
- Ukuran diameter

TIMUN

English: Cucumber

Nama Botani: *Cucumis sativus* L.

Rujukan Standard

MS 956: 2003 SPESIFIKASI BAGI TIMUN
(ULANGKAJI KEDUA)



KEPERLUAN MINIMA

- Agak bebas daripada kotoran dan kerosakan dan sesuai untuk manusia.
- Telah mencapai peringkat kematangan yang mencukupi yang dikehendaki oleh pasaran.
- Residu racun perosak hendaklah tidak melebihi kadar maksimum residu yang ditetapkan di dalam Peraturan Makanan Malaysia 1985.



GRED

Timun dikelaskan kepada tiga gred, bergantung kepada keadaan dan ciri-ciri gred seperti di dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Timun dalam kelas ini hendaklah terdiri daripada varieti seragam, segar, bersih, sempurna bentuknya, lurus, dan mempunyai kematangan seragam. Ianya hendaklah bebas daripada kerosakan atau kecacatan dan seragam saiznya.	Kematangan $\leq 5\%$ Segar $\leq 5\%$ Rosak $\leq 5\%$ Kecacatan $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Jumlah kelonggaran hendaklah tidak melebihi 5% dari segi bilangan di dalam setiap bungkusan
1	Timun dalam kelas ini hendaklah terdiri daripada varieti seragam, segar, bersih, sempurna bentuknya, sedikit bengkok, dan mempunyai kematangan seragam. Ianya hendaklah agak bebas daripada kerosakan atau kecacatan dan seragam saiznya.	Kematangan $\leq 5\%$ Segar $\leq 5\%$ Rosak $\leq 5\%$ Kecacatan $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Jumlah kelonggaran hendaklah tidak melebihi 10% dari segi bilangan di dalam setiap bungkusan
2	Timun dalam kelas ini hendaklah terdiri daripada varieti seragam, masih segar, bersih, sempurna bentuknya, sedikit bengkok, dan mempunyai kematangan seragam. Ianya hendaklah agak bebas daripada kerosakan atau kecacatan dan seragam saiznya.	Kematangan $\leq 10\%$ Segar $\leq 10\%$ Rosak $\leq 10\%$ Kecacatan $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Jumlah kelonggaran hendaklah tidak melebihi 15% dari segi bilangan di dalam setiap bungkusan

SAIZ

Pengelasan saiz bagi timun hijau putih dan timun susu ditentukan oleh panjang dalam unit sm seperti di dalam jadual.

Saiz	Kod	Panjang (sm)	
		Timun hijau putih	Timun susu
BESAR	L	> 23	> 21
SEDANG	M	19 – 23	19 – 21
KECIL	S	< 19	< 19

TOMATO

English: Tomato

Nama Botani: *Lycopersicon esculentum* Mill

Rujukan Standard

MS 893:2010 (CONFIRMED:2015) TOMATO
SEGAR - SPESIFIKASI (SEMAKAN
KETIGA)



KEPERLUAN MINIMA

- Tomato hendaklah mempunyai ciri keseragaman varieti dalam setiap bungkusan.
- Tomato hendaklah bersih dan agak bebas daripada kerosakan serta sesuai untuk dimakan.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-peraturan Makanan 1985 serta Peraturan-peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Tomato hendaklah digredkan seperti dalam jadual.

Gred	Keperluan	Kelonggaran (maksimum)
Premium	Tomato dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan bebas daripada kecacatan atau kerosakan.	Kematangan $\leq 3\%$ Segar $\leq 3\%$ Bersih $\leq 3\%$ Rosak $\leq 3\%$ Cacat $\leq 3\%$ Keseragaman saiz $\leq 3\%$ Jumlah kelonggaran hendaklah tidak melebihi 5% dari segi bilangan di dalam setiap bungkusan.
1	Tomato dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Kematangan $\leq 5\%$ Segar $\leq 5\%$ Bersih $\leq 5\%$ Rosak $\leq 5\%$ Cacat $\leq 5\%$ Keseragaman saiz $\leq 5\%$ Jumlah kelonggaran hendaklah tidak melebihi 10% dari segi bilangan di dalam setiap bungkusan.
2	Tomato dalam kelas ini hendaklah daripada varieti yang sama, mempunyai saiz dan kematangan yang seragam, serta segar, bersih dan agak bebas daripada kecacatan atau kerosakan.	Kematangan $\leq 10\%$ Segar $\leq 10\%$ Bersih $\leq 10\%$ Rosak $\leq 10\%$ Cacat $\leq 10\%$ Keseragaman saiz $\leq 10\%$ Jumlah kelonggaran hendaklah tidak melebihi 15% dari segi bilangan di dalam setiap bungkusan.

SAIZ

Saiz tomato ditentukan oleh diameter dalam unit mm seperti di dalam jadual.

Kod saiz		Diameter (mm)
1	XXS	< 20
2	XS	21-30
3	S	31-40
4	M	41-50
5	L	51-60
6	XL	61-70
7	XXL	> 70



TONG HO

English: Garland chrysanthemum

Nama Botani: *Leucanthemum coronarium*

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYUR BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



TURNIP

English: Turnip

Nama Botani: *Brassica rapa var. rapa*

Rujukan Standard

FS089:2016 - STANDARD UMUM BUAH
DAN
SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



UBI BIT

English: Beetroot

Nama Botani: *Beta vulgaris* L.

Rujukan Standard

UNECE STANDARD FFV-59 (2019)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the root and tubercle vegetables must be:

- intact; the product-specific presentation without tip and/or lateral roots is not regarded as a defect provided the cut is clean; in any case fractured roots are excluded
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, this means
 - practically free of any visible foreign matter, in case of washed roots
 - practically free of serious dirt and impurities, in case of unwashed roots
 - practically free from pests
 - practically free from damage caused by pests
- fresh in appearance and firm
- free of discoloration of the flesh such as grey or black streaks



- not forked
- free of secondary root growth
- not hollow
- not woody, fibrous or spongy
- free of abnormal external moisture
- free of any foreign smell and/or taste.

In case of produce presented with leaves, the leaves must be sound, fresh and clean. In case of produce presented without leaves, the leaves must be neatly cut at the top of the root.

The development and condition of the root and tubercle vegetables must be such as to enable them:

- to withstand transportation and handling to arrive in satisfactory condition at the place of destination.

GED

Root and tubercle vegetables are classified in two classes, as defined below:

(i) Class I

Root and tubercle vegetables in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The root and tubercle vegetables must be well formed. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- slight defects in colouring of the skin
- slight bruising and damage removable by normal peeling
- slight skin defects including slight healed cracks.

The flesh must be perfectly sound.

In case of produce presented with leaves, the leaves may be slightly damaged.

(ii) Class II

This class includes root and tubercle vegetables that do not qualify for inclusion in Class I but satisfy the minimum requirements specified above.

The following defects may be allowed, provided the root and tubercle vegetables retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring of the skin
- bruising and damage removable by normal peeling
- healed cracks not reaching the core or in case of kohlrabi not more than 1 cm deep
- one fork (two tips).
- The flesh must be free from major defects.

In case of produce presented with leaves, the leaves may be damaged, but must be free of progressive defects affecting the produce.

At all marketing stages, quality tolerances shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

Quality tolerances

(i) Class I

A total tolerance of 10 per cent, by number or weight, of root and tubercle vegetables not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce neither satisfying the requirements of Class II quality nor the minimum requirements, or of produce affected by decay. An additional 10 per cent, by weight, of roots may be broken.

(ii) Class II

A total tolerance of 10 per cent, by number or weight, of root and tubercle vegetables satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay. An additional 25 per cent, by weight, of roots may be broken.

SAIZ

There is no sizing requirement for root and tubercle vegetables.



UBI KAYU

English: Tapioca/ Cassava

Nama Botani: *Manihot esculenta* Crantz

Rujukan Standard

FS 058: 2011 – SPESIFIKASI STANDARD
UBI KAYU

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan sesuai untuk dimakan oleh manusia.
- Ubi Kayu hendaklah masih segar dan bersih.
- Telah dibuat perapian dengan sempurna.



GRED

Ubi Kayu dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Keperluan	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi semua varieti, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual berikut:

Saiz	Kod		Berat (g)
BESAR	L	A	< 600
SEDANG	M	B	301 - 600
KECIL	S	C	200 - 300



KELADI

English: Taro

Nama Botani: *Colocasia esculenta* L. Schott

Rujukan Standard

MS 2712: 2018 Fresh taro (corm) - Specification

KEPERLUAN MINIMA

1) In all grades, subject to the special provisions and the tolerances allowed for each grade, taro shall be:

- whole
- fresh
- of similar varietal characteristics
- firm
- well-trimmed
- free of sprout
- properly cured
- sound
- clean
- practically free from damage and defect and
- free of any foreign odour and abnormal external moisture.



- 2) Production of taro shall comply with the Good Agriculture Practice (GAP) as prescribed in MS 1784 or equivalent.
- 3) Pesticide residue, heavy metals and microbial shall not exceed the maximum limits as prescribed under the Food Act 1983 (Act 281) and Food Regulations 1985.
- 4) Handling of the taro shall comply with the requirements of Food Hygiene Regulations 2009 and other relevant public health legislation currently enforced in the country.
- 5) Marketing of taro shall comply with the Federal Agricultural Marketing Authority Act 1965 [Act 141] and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.

GRED

Fresh taro shall be graded as described in table.

Grade	Requirements	Tolerance per lot (maximum)
Premium	Taro shall be: • of the same variety • fresh • clean • uniform in size and • free from any defect and/or damage. Taro of this grade shall meet the requirements of Grade 1.	5 % by number or weight not satisfying the requirements of this grade, but meeting those of grade 1
1	Taro shall be: • of the same variety • fresh • clean • uniform in size and • practically free from any defect and/or damage. Taro of this grade shall meet the requirements of Grade 2.	• Unfresh not exceeding 5 % • Damage not exceeding 5 % • 10 % by number or weight not satisfying the requirements of this grade, but meeting those of Grade 2
2	Taro shall be: • of the same variety • fresh • clean • uniform in size and • practically free from any defect and/or damage. Taro of this grade does not qualify for inclusion in the higher grades, but shall satisfy the minimum requirements specified in 4.2.	• Unfresh not exceeding 10 % • Non-uniform maturity not exceeding 10 % • Damage not exceeding 10 % • 15 % by number or weight not satisfying the requirements of this grade

SAIZ

The size classification within grades of the fresh taro shall be based on weight as listed in table.

Size code		Weight (g)
1	XL	> 1200
2	L	> 900 - 1200
3	M	> 600 - 900
4	S	> 300 - 600
5	XS	< 300

UBI KELEDEK

English: Sweet potato

Nama Botani: *Ipomoea batatas* L.

Rujukan Standard

MS 2655: 2015 Keledek segar (*Ipomoea batatas* L.) - Spesifikasi



KEPERLUAN MINIMA

- Keledek hendaklah memenuhi keperluan minimum seperti berikut:

- a) mempunyai ciri keseragaman varieti;
- b) segar;
- c) bersih;
- d) tidak bertunas;

e) agak bebas daripada kerosakan dan/atau kecederaan; dan

f) mencapai tahap kematangan seperti dikehendaki oleh pasaran.

- Keledek hendaklah dibuat perapian dengan membuang akar rambut dan memotong akar tidak melebihi 5 mm daripada hujung ubi keledek.
- Residu racun perosak, logam berat, mikroorganisma dan iradiasi hendaklah mematuhi peruntukan yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985.



- Pengeluaran keledak hendaklah mematuhi Amalan Pertanian Baik (APB) seperti keperluan MS 1784 dan MS 1784-7 atau setara dengannya.
- Keledak hendaklah dikendali mengikut keperluan di bawah Peraturan-Peraturan Kebersihan Makanan 2009 dan peraturan semasa yang berkaitan dengan kesihatan awam yang dikuatkuasakan di dalam negara.
- Pengeluaran keledak hendaklah mematuhi AMA Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.

GRED

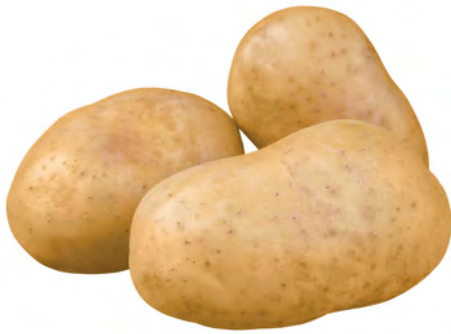
Keledek dikelaskan kepada tiga gred seperti jadual.

Grade	Spesifikasi	Kelongsaran
Premium	Keledek hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz dan kematangan yang seragam dan • bebas daripada kecacatan dan/atau kerosakan. Keledek dalam gred ini hendaklah menepati keperluan Gred 1.	Maksimum 5% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan
1	Keledek hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz dan kematangan yang seragam dan • agak bebas daripada kecacatan dan/atau kerosakan. Keledek dalam gred ini hendaklah menepati keperluan Gred 2.	Tidak segar tidak melebihi 5% Rosak tidak melebihi 5% Cacat tidak melebihi 8% Ketidakseragaman saiz tidak melebihi 8% Maksimum 10% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan
2	Keledek hendaklah: • daripada varieti yang sama • segar • bersih • mempunyai saiz dan kematangan yang seragam dan hampir bebas daripada kecacatan dan/atau kerosakan.	Tidak segar tidak melebihi 10% Rosak tidak melebihi 5% Cacat tidak melebihi 10% Ketidakseragaman saiz tidak melebihi 10% Maksimum 20% daripada jumlah atau berat hasilan dibenarkan di dalam setiap bungkusan

SAIZ

Bagi semua varieti, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual berikut:

Saiz	Kod	Berat (g)
LEBIH KECIL	XS	50 to 150
KECIL	S	> 150 to 250
SEDERHANA	M	>250 to 350
BESAR	L	>350 to 450
LEBIH BESAR	XL	> 450



UBI KENTANG

English: Potato

Nama Botani: *Solanum tuberosum* L.

Rujukan Standard

ASEAN STANDARD FOR WHITE
POTATO (ASEAN Stan 66: 2020)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the white potato shall be:

- whole
- fresh in appearance
- firm
- free from sprouting
- free of defects affecting the appearance, keeping quality, and presentation

in the package:

- green coloration; pale green flush exceeding one eighth of the surface area
- Sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- practically clean and practically free of any visible foreign matter



- practically free of pests¹
- practically free of damage caused by pests affecting the general appearance of the produce
- free of mechanical and/or physiological damage such as low and /or high temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign odour and/or taste.

The development and condition of the white potato should be such as enable them:

- to withstand transport and handling;
and
- to arrive in satisfactory condition at the place of destination.

Minimum Maturity Requirements

White potato must have reached an appropriate degree of development in accordance with criteria proper to the variety and to the area in which they are grown.

¹ Provisions for pests and damage caused by pests apply without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC)

GREED

White potato is classified into three classes defined below:

i) 2.2.1 Extra class

White potato in this class shall be of superior quality. They shall be characteristic of the variety. It shall be practically free of pest and practically free from defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) 2.2.2 Class I

White potato in this class shall be of good quality. They shall be characteristic of the variety. The following defects may be allowed, provided these do not affect the general appearance of the produce, quality, keeping quality and presentation in the package:

- slight defects in shape
- slight defects in color and
- slight damage such as cracks, bruises, or holes not exceeding 5% of the total surface area and
- cracks cuts, bruises or roughness not exceeding 4 mm in depth.

iii) 2.2.3 Class II

This class includes white potato which does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified above. The following defects, however, may be allowed, provided that the white potato retains their essential characteristics with regards to the general appearance of the produce, quality, keeping quality and presentation:

- defects in shape
- defects in color
- damage such as cracks, bruises, or holes not exceeding 10% of the total surface area and
- cracks cuts, bruises or roughness not exceeding 4 mm in depth.

Quality Tolerances

i) Extra class

Five percent by number or weight of white potato not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of white potato not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of white potato satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration.

SAIZ

Size is determined by weight in accordance with the following table:

Size code	Weight (g)
1	> 350
2	> 300 - 350
3	> 250 - 300
4	> 200 - 250
5	> 150 - 200
6	> 100 - 150
7	50 - 100
8	< 50



ULAM RAJA

English: Ulam raja

Nama Botani: *Cosmos caudatus Kunth*

Rujukan Standard

FS 090: 2016 - STANDARD UMUM
SAYUR BERDAUN

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah dibuat perapian.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Sayur berdaun dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan .	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 1.
1	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • agak bebas daripada rosak dan/atau kecacatan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan Gred 2.
2	Sayur berdaun hendaklah: • daripada varieti yang sama • segar • bersih dan • hampir bebas daripada kecacatan dan/atau kerosakan	Kerosakan hendaklah tidak melebihi 5%. Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Sayur berdaun dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Tiada keperluan saiz bagi sayur berdaun.



BUAH

ANGGUR

English: Grape

Nama Botani: *Vitis vinifera* L.

Rujukan Standard

CODEX STAN 255-2007 Standard for
Table Grapes



KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the bunches and berries must be:

- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matterpractically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- practically free of damage caused by low and/or high temperatures.

In addition, the berries must be:

- whole
- well formed
- normally developed
- Pigmentation due to sun is not a defect so long as this only affects the skin of the berries.

The development and condition of the table grapes must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.



GRED

Table Grapes are classified in three classes defined below:

i) “Extra” Class

Table grapes in this class must be of superior quality. The bunches be characteristic of the variety in shape, development and colouring, allowing for the district in which they are grown. The berries must be firm, firmly attached to the stalk, evenly spaced along the stalk and have their bloom virtually intact. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Table grapes in this class must be of good quality. The bunches must be characteristic of the variety in shape, development and colouring, allowing for the district in which they are grown. The berries must be firm, firmly attached to the stalk and, as far as possible, have their bloom intact. They may, however, be less evenly spaced along the stalk than in the “Extra” Class. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape;
- a slight defect in colouring;
- very slight sun scorch affecting the skin only.

ii) Class II

This class includes table grapes which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The bunches may show slight defects in shape, development and colouring, provided these do not impair the essential characteristics of the variety, allowing for the district in which they are grown. The berries must be sufficiently firm and sufficiently attached to the stalk. They may be less evenly spaced along the stalk than in Class I. The following defects, however, may be allowed, provided the table grapes retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- slight sun scorch affecting the skin only
- slight bruising
- slight skin defects

Quality Tolerances

i) “Extra” Class

Five percent by weight of bunches not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by weight of bunches not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by weight of bunches satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the bunch.

Minimum Bunch Weight

The minimum bunch weight shall be 75 g. This provision does not apply to packages intended for single servings.

Size Tolerances

Ten percent by weight of bunches not satisfying the size requirements as specified in Section 3.



APRIKOT

English: Apricot

Nama Botani: *Prunus armeniaca* L.

Rujukan Standard

UNECE STANDARD FFV-02 (2017) -
APRICOTS

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the apricots must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the apricots must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination

Uniformity in size is compulsory for Classes “Extra” and I.

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of apricots not satisfying the requirements as regards sizing is allowed



GED

Apricots are classified in three classes, as defined below:

(i) “Extra” Class

Apricots in this class must be of superior quality. They must be characteristic of the variety allowing for the district in which the fruit is grown. The flesh must be perfectly sound.

They must be free from defects, with the exception of very slight superficial effects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Apricots in this class must be of good quality. They must be characteristic of the variety allowing for the district in which the fruit is grown. The flesh must be perfectly sound. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in development
- slight pressure marks not more than 1 cm² of the total surface area
- slight skin defects, including slight healed cracks, which must not extend over more than:
 - 1 cm in length for defects of elongated shape
 - 0.5 cm² of the total surface area for other defects
 - 10 per cent of the total surface area for russetting.

iii) Class II

This class includes apricots that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The flesh must be free from major defects. The following defects may be allowed, provided the apricots retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in development, including split stones, provided the fruit is closed and the flesh is sound and not discoloured
- bruising not more than 1 cm² of the total surface area
- skin defects, including slight healed cracks, which must not extend over more than:
 - 2 cm in length for defects of elongated shape
 - 1 cm² of the total surface area for other defects
 - 15 per cent of the total surface area for russetting.

Provisions concerning tolerances:

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

Quality tolerances

(i) “Extra” Class

A total tolerance of 5 per cent, by number or weight, of apricots not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of apricots not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of apricots satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

Within this tolerance, fruit split at the stalk cavity and fruit with split stones are allowed.

SAIZ

Size is determined by the maximum diameter of the equatorial section.

The minimum size is 30 mm.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed 5 mm in “Extra” Class and 10 mm in Classes I and II (if sized).



AVOKADO

English: Avocado

Nama Botani: *Persea Americana* Mill.

Rujukan Standard

CODEX STAN 197-1995 STANDARD
FOR AVOCADO

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the avocados must be:

- whole
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste practically free of damage caused by low and/or high temperatures
- having a stalk not more than 10 mm in length which must be cut off cleanly.



However, its absence is not considered a defect on condition that the place of the stalk attachment is dry and whole.

The avocados must have reached a stage of physiological development which will ensure the completion of the ripening process, in accordance with criteria proper to the variety and to the area in which they are grown. The mature fruit should be free of bitterness.

The development and condition of the avocados must be such as to enable them:

- to withstand transport and handling
and
- to arrive in satisfactory condition at the place of destination.

GED

i) “Extra” Class

Avocados in this class must be of superior quality. They must be characteristic of the variety. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. If present, the stalk must be intact.

ii) Class I

Avocados in this class must be of good quality. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape and colouring;
- slight skin defects (corkiness, healed lenticels) and sunburn the maximum total area should not exceed 4 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be slightly damaged.

iii) Class II

This class includes avocados which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the avocados retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and colouring
- skin defects (corkiness, healed lenticels) and sunburn; the maximum total area should not exceed 6 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be damaged.

Quality Tolerances

i) "Extra" Class

Five percent by number or weight of avocados not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of avocados not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class. Included therein shall be allowed not more than 1% for avocados affected by decay.

iii) Class II

Ten percent by number or weight of avocados satisfying neither the requirements of the class nor the minimum requirements, with the exception of avocados affected by decay that should be not more than 2%.

SAIZ

Avocados can be sized through one of the following options:

Size code	Weight (g)
2	> 1220
4	781 – 1220
6	576 – 780
8	456 – 576
10	364 – 462
12	300 – 371
14	258 – 313
16	227 – 274
18	203 – 243
20	184 – 217
22	165 – 196
24	151 – 175
26	144 – 157
28	134 – 147
30	123 – 137
32	80 – 123 (only Hass type)

The minimum weight for avocados of Antillean/West Indian/Guatemalan and other not defined varieties is 170 g.

- By count: To ensure uniformity in size between produce in the same package when they are sized by count, the weight of the smallest fruit shall be not less than 75% of the weight of the largest fruit in the same package.

GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.



BACANG

English: Horse mango

Nama Botani: *Mangifera foetida* (Lour.)
Blume

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



BELIMBING

English: Starfruit/carambola

Nama Botani: *Averrhoa carambola* L.

Rujukan Standard

MS 1127: 2017 Fresh starfruit

Averrhoa carambola L.) –

Specification (Third revision)

KEPERLUAN MINIMA

In all grades, subject to the special provisions for each grade and tolerances allowed, the fruit shall be:

- a) whole
- b) firm and fresh, while produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- c) mature (index 2) but not over-ripe (index 7)
- d) clean, practically free of any stains, dirt and foreign materials
- e) practically free of damages
- f) free of any foreign odour and/or taste
and
- g) free of abnormal external moisture excluding condensation following withdrawal from cold storage.
 - The development and condition of the fruit shall be such as to enable them to:
 - a) withstand transport and handling
and
 - b) arrive in satisfactory condition at the place of destination.
 - The pesticide residue, heavy metals and microbial shall not exceed the maximum limits prescribed by the Food Act 1983 (Act 281) and the Food Regulations 1985.
 - Marketing of fruit shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act 141) and Federal Agricultural Marketing Authority Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.



GED

The fruit shall be classified into three grades as shown in table.

Grade	Requirement	Tolerance (maximum)
Premium	• similar varietal characteristics • free of damages and defects or very slight affect the general quality, appearance, keeping quality of the fruit and presentation in the package and • uniform in size.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1.
1	• similar varietal characteristics • practically free from damages and defects provided these do not affect general quality, appearance, keeping quality of the fruit and presentation in the package • slight defect of the skin and other superficial defects not exceeding 5% of the total surface area and • practically uniform in size.	• damage not exceeding 5% • defect not exceeding 5% and • 10% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2.

- similar varietal characteristics
 - satisfy the minimum requirements specified in Clause 4, but do not qualify for inclusion in the higher grades
 - slight defect of the skin and other superficial defects not exceeding 10% of the total surface area
 - retain the general quality appearance, keeping quality of the fruit and presentation in the package and
 - reasonably uniform in size.
- damage not exceeding 5%
 - defect not exceeding 10% and
 - 15% by number or weight of the fruit satisfying the requirements of this grade.

SAIZ

The fruit shall be classified into four sizes as shown in table:

Size	Weight per fruit (g)
S	80 to 120
M	121 to 160
L	161 to 200
XL	>200



BETIK

English: Papaya

Nama Botani: *Carica papaya* L.

Rujukan Standard:

MS 1040: 1986 (CONFIRMED:2012)

Specification for fresh papaya

KEPERLUAN MINIMA

- It shall be washed, reasonably free from injury, decay, disease, living and dead insects, moulds and other contaminants.
- The unit of trading shall be in kilogrammes.

GRED

Each class shall be graded according to its general appearance, quality and condition.

i) Grade A.

Consists of fruits of similar varietal characteristics which are well coloured, firm, clean, well shaped and are free from decay, worm holes, and injury caused by handling, disease, insects and mechanical or other means. Incident to proper grading and handling, a tolerance of 10 % by count for defects and 5 % by count for offsize is allowable but must conform to the requirements of the next lower grade.

ii) Grade B.

Consists of fruits of similar varietal characteristics which are well coloured, firm, clean, well shaped and reasonably free from decay, worm holes, and injury caused by scars, disease, insects, mechanical or other means. Incident to proper grading and handling, a tolerance of 10% by count for defects of 10% by count for offsize is allowable.



SAIZ

The fruit shall be classified according to size.

- Large, weighing 2.5 kilogrammes and above.
- Medium, weighing below 2.5 kilogrammes to 1.5 kilogrammes.
- Small, weighing below 1.5 kilogrammes.



BETIK EKSOTIKA

English: Eksotika papaya

Nama Botani: *Carica papaya* L. var.
Eksotika

Rujukan Standard

MS 1145: 2003 (CONFIRMED:2012)
Specification for fresh eksotika papaya
(First revision)

KEPERLUAN MINIMA

The fruit shall be:

- whole, fresh, mature and clean
- practically free of visible foreign material and damage caused by pest and diseases and
- free of pronounced blemishes, damage caused by chilling injury, abnormal external moisture excluding condensation following withdrawal from cold storage, foreign odour and/or taste and carpellody. When a peduncle is present, it shall be no longer than 0.5 cm and the cut shall be clean.



GRED

The fruit shall be graded to grades Premium, 1 and 2 according to their appearance, quality and conditions as shown in table.

Grade	Requirement	Tolerance (maximum)
Premium	The fruit shall be characteristic of the variety, uniform in size and shape, free from blemishes with the exception of very slight superficial irregularities in the skin. There shall be no freckled fruits.	Fruit which do not meet these requirements shall not exceed 5% by count but shall conform to the next lower grade.
1	The fruit shall be characteristic of the variety, fairly uniform in size and shape and free from blemishes.	Fruit which do not meet these requirements shall not exceed 10% by count but shall conform to the next lower grade.
2	The fruit shall be characteristic of the variety, fairly uniform in size and shape and reasonably free from blemishes.	Fruit which do not meet these requirements shall not exceed 10% by count.

SAIZ

The size classification within the grade of the fruit shall be as given in table.

Size	Weight per fruit(g)
EXTRA LARGE	> 850
LARGE	651 - 850
MEDIUM	451 - 650
SMALL	250 - 450



BIDARA

English: Indian jujube

Nama Botani: *Ziziphus mauritiana* Lamk.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



CEMPEDAK

English: Cempedak

Nama Botani: *Artocarpus integer* (Thunb.)
Merr.

Rujukan Standard

FS 036: 2006 SPESIFIKASI PIAWAIAN
DAN GRED CEMPEDAK

KEPERLUAN MINIMA

- Agak bebas daripada rosak disebabkan oleh kecederaan mekanikal, perosak dan penyakit.
- Agak bersih dan bebas daripada kecacatan dan sesuai untuk dimakan oleh manusia.
- Telah mencapai tahap kematangan yang mencukupi seperti yang dikehendaki oleh pasaran.



GRED

Buah Cempedak dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Buah Cempedak dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah bebas dari kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 3% Kecacatan < 5% Keseragaman saiz < 5%
1	Buah Cempedak dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%
2	Buah Cempedak dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 10% Segar < 10% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%

SAIZ

Bagi buah Cempedak, saiz ditentukan oleh berat dalam unit kilogram (kg) sepertimana jadual:

Saiz	Kod	Berat (kg)
TERLALU BESAR	XL	> 3.0
BESAR	L	> 2.5 – 3.0
SEDANG	M	> 2.0 – 2.5
KECIL	S	1.5 – 2.0



CERI

English: Cherry

Nama Botani: *Prunus avium* L.

Rujukan Standard

UNECE STANDARD FFV-13

CHERRIES (2019)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the cherries must be:

- intact; missing stems are not regarded as a defect, provided the skin is not damaged and there is no severe leakage of juice
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- fresh in appearance
- practically free from pests
- practically free from damage caused by pests
- firm (according to the variety)
- free of abnormal external moisture
- free of any foreign smell and/or taste.
- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.



GRED

The cherries are classified in three classes, as defined below:

(i) "Extra" Class

Cherries in this class must be of superior quality. They must be characteristic of the variety. They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Cherries in this class must be of good quality. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- slight defects in colouring.

(iii) Class II

This class includes cherries that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The following defects may be allowed, provided the cherries retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- small, healed surface scars

Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of cherries not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality, and not more than 2 per cent may consist of split and/or worm-eaten fruit.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of cherries not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay, and not more than 4 per cent may consist of split and/or worm-eaten fruit.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of cherries satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance, not more than 4 per cent in total may consist of over-ripe, split, or worm-eaten fruit or of produce affected by decay.

SAIZ

Size is determined by the maximum diameter of the equatorial section. The minimum size shall be:

- 20 mm for Picota type in "Extra" Class.
- 22 mm for other varieties in "Extra" Class.
- 17 mm in Classes I and II.

Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of cherries not satisfying the requirements as regards sizing is allowed.



CIKU

English: Sapodilla

Nama Botani: *Manilkara zapota* (L.) P. van Royen

Rujukan Standard

ASEAN STANDARD FOR SAPODILLA
(ASEAN Stan 25:2012)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the sapodilla fruit must be:

- whole with or without peduncle
- showing characteristics of the variety
- fresh and firm
- free of rotting or deterioration which may make it unfit for human consumption
- clean
- practically free of any visible foreign matter
- practically free of physical and/or physiological damage
- practically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage and- free of any foreign smell and/or taste.

The sapodilla must be harvested and have reached an appropriate degree of maturity, in accordance with the area in which they are grown. The development and condition of the sapodilla must be such as to enable them:

- to withstand transport and handling, and to arrive in satisfactory condition at the place of destination.



GRED

Sapodilla is classified in three classes defined below:

i) "Extra" Class

Sapodilla in this class must be of superior quality. It must be practically free of defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Sapodilla in this class must be of good quality. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slightly irregular in shape
- slight deviation from the normal colour
- slight skin defects. The total area affected shall not exceed 5% of the total surface area.

iii) Class II

This class includes sapodilla which does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

The following defects, however, may be allowed provided the sapodilla retains its essential characteristics as regards the quality, the keeping quality and presentation:

- irregular in shape
- slight deviation from the normal colour
- skin defects. The total area affected shall not exceed 10% of the total surface area

Quality Tolerances

i) "Extra" Class

Five percent by number or weight of sapodilla not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of sapodilla not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of sapodilla satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption

SAIZ

Size is determined by the weight of the individual fruit, in accordance with the following table:

Size code	Weight/fruit (gm)
1	> 190
2	> 165 - 190
3	> 140 - 165
4	> 115 - 140
5	> 90 - 115
6	> 65 - 90
7	30 - 65

For all classes, 10% by number or weight for individual fruit corresponding to the size immediately above and/or below that indicated on the package.



DELIMA

English: Pomegranate

Nama Botani: *Punica Granatum* L.

Rujukan Standard

CODEX STAN 310-2013 STANDARD
FOR POMEGRANATE

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the pomegranates must be:

- whole
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, free of any visible foreign matter
- free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- free of damage caused by frost
- free of damage caused by low and/or high temperatures
- free of sunburns affecting the arils of the fruit.
- The pomegranates must have reached an appropriate degree of development and ripeness in accordance with criteria proper to the varieties and to the area in which they are grown.
- The development and condition of the pomegranates must be such as to enable them:
 - to withstand transport and handling and to arrive in satisfactory condition at the place of destination



GRED

Pomegranates are classified in three classes as defined below:

i) “Extra” Class

Pomegranates in this class must be of superior quality. They must be characteristic of the variety. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Pomegranates in this class must be of good quality. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape
- slight defects in coloring
- slight skin defects including cracking

The defects must not, in any case, affect the arils of the fruit.

iii) Class II

This class includes pomegranates which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the pomegranates retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in coloring
- skin defects including cracking

The defects must not, in any case, affect the arils of the fruit.

Quality Tolerances

i) “Extra” Class

Five percent by number or weight of pomegranates not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of pomegranates not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of pomegranates satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Pomegranate may be sized by count, diameter or weight in accordance with existing commercial trading practices. When such is the case, the package must be labelled accordingly.

- A) When sized by count, size is determined by the number of individual fruits per package.
- B) Pomegranate may be sized by diameter (the maximum diameter of the equatorial section of each fruit).

The following tables a guide and may be used on an optional basis

Size code		Diameter (mm)
1	A	≥ 81
2	B	71 – 80
3	C	61 – 70
4	D	51 – 60
5	E	40 – 50

- C) Pomegranate may be sized by weight (the individual weight of each fruit).

The following table tableis a guide and may be used on an optional basis.

Size code		Weight (g)
1	A	≥ 501
2	B	401 – 500
3	C	301 – 400
4	D	201 – 300
5	E	125 – 200

For all classes, 10% by number or weight of pomegranates corresponding to the size immediately above and/or below that indicated on the package.



DOKONG

English: Dokong

Nama Botani: *Lansium domesticum* Corr.

Rujukan Standard

MS 2573: 2015 Fresh dokong
(*Lansium domesticum* Corr.) –
Specification

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and tolerances allowed, the fruit shall be:

- whole
- with pedicel intact
- fresh and practically clean
- free from decay and diseases
- free from bruising or other mechanical damage
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free from damage caused by low or high temperatures
- free of any foreign smell or taste
- practically free from visible defects and
- practically free from damage
- caused by pests

The fruit shall be of optimum maturity where the fruits achieve appropriate ripeness characterised by:

- fruit skin uniformly yellow in colour with slight traces of green allowed and
- sweetness as reflected by total soluble solids (TSS) is not less than 12° Brix.

The development and condition of the fruits shall be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.



GREED

Dokong are classified in three quality classes defined in table .

Grade	Requirement	Tolerance
Premium	Dokong in this class shall be of superior quality. They shall be characteristic of the variety. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the fruit, the quality, the keeping quality and presentation in the package. The fruit bunch shall be whole and tight, with fruit size uniformity of more than 80%. A minimum of 80% of the individual fruit weight in this class shall be more than 15g.	A maximum of 5% by weight of fruit bunch not satisfying the requirements of the class but meeting those of Grade 1, or exceptionally, coming within the tolerances of Grade 1. Abscised fruits shall be less than 5%. The number of individual fruit weighing less than 15g shall not exceed 10% of total fruit number in a bunch.
1	Dokong in this class shall be of good quality. They shall be characteristic of the variety. Slight skin defects shall not exceed 10% of the total surface area, provided these do not affect the general appearance of the fruit, the quality, the keeping quality and presentation in the package. The fruit bunch shall be practically whole and practically tight with fruit size uniformity of more than 50%. A minimum of 70% of the individual fruit weight in this class shall be more than 15g.	A maximum of 10% by weight of fruit bunch not satisfying the requirements of the class but meeting those of Grade 2, or exceptionally, coming within the tolerances of Grade 2. Abscised fruits shall be less than 10%. The number of individual fruit weighing less than 15g shall not exceed 20% of total fruit number in a bunch.
2	This class includes dokong which does not qualify for inclusion in the higher classes, but satisfies the minimum requirements specified in 4.1 provided the dokong retains its essential characteristics as regards to the quality, the keeping quality and presentation. The fruit bunch shall be reasonably whole and reasonably tight. The individual fruit weight of less than 15g is allowed.	A maximum of 10% by number or weight not satisfying the requirements of this class but fruit affected by rotting or unfit for consumption is excluded. Abscised fruits shall be less than 30%.

SAIZ

Provision concerning size codes are specified as in table.

Size code	Weight per bunch (g)
A	More than 600
B	More than 400 up to 600
C	More than 200 up to 400
D	100 to 200

For all classifications, the size tolerance is 10% by weight of fruit bunch corresponding to the size code immediately above and/or below that indicated on the package.



DUKU LANGSAT

English: Duku langsung

Nama Botani: *Lansium domesticum* Corr.

Rujukan Standard

ASEAN STANDARD FOR
LANSIUM (ASEAN Stan 8:2008)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the lansium must be:

- Whole (with or without calyx and pedicel)
- show characteristics of the variety or cultivar in terms of:
 - freshness
 - shape
 - colour
 - taste
 - firmness and
 - others (e.g. cork cells or brown specks)
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free from visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of bruising or clearly visible defects on the skin
- practically free of damage caused by low and/or high temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste



The lansium must have been carefully picked and have reached an appropriate degree of ripeness, in accordance with the characteristics of the variety and/or commercial type and to the area in which they are grown. This provision allows for smell caused by conservation agents used in compliance with corresponding regulations.

The development and condition of the lansium must be such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination

GRED

Lansiums are classified in three classes defined below:

i) "Extra" Class

Lansium in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

i) Class I

Lansium in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape
- slight defects in colouring
- slight skin defects (i.e., mechanical bruising, sun spots and latex burns). The total area affected shall not exceed 10% of the total surface area
- slight marks caused by pests

The defects must not, in any case, affect the pulp of the fruit.

ii) Class II

This class includes lansium which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following may be allowed, provided the lansium retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- skin defects (i.e., mechanical bruising, sun spots and latex burns). The total area affected should not exceed 15% of the total surface
- slight marks caused by pests.

The defects must not, in any case, affect the pulp of the fruit.

Quality Tolerances

i) "Extra" Class

Ten percent (10%) by weight of lansiums not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Twenty percent (20%) by weight of lansiums not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Twenty percent (20%) by weight of lansiums satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the individual fruit or bunch, in accordance with the following table:

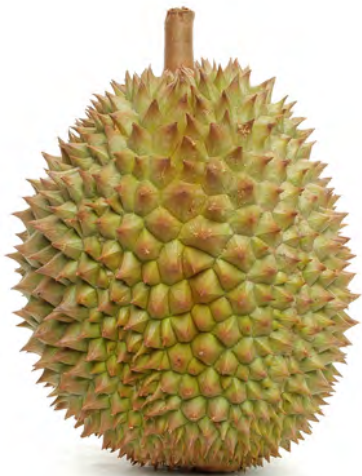
For fruit

Size Code	Weight (gram/fruit)
1	> 40
2	36 - 40
3	31 - 35
4	21 - 30
5	10 - 20

For bunch

Size code	Weight (gram/fruit)
1	> 700
2	501 – 700
3	301 – 500
4	201 – 300
5	100 – 200

For all classes, and 20% by weight for individual fruit and bunch, corresponding to the size immediately above and/or below that indicated on the package.



DURIAN

English: Durian

Nama Botani: *Durio zibethinus* L.

Rujukan Standard

MS 2431: 2022 (First revision)

KEPERLUAN MINIMA

1) In all classes, subject to the special provisions for each class and tolerances allowed, the fruit shall be:

- whole with sound peduncle intact, with or without the stem
- fresh and clean
- free from decay and diseases
- practically free from visible defects
- practically free from damage caused by pests
- free from damage caused by low and/or high temperatures
- free of any foreign smell and/or taste and
- when ripe, the following abnormal pulp is not allowed: hardened pulp, tip burn and water core.

If present of any or mixed the total defects must not exceed 5% of the edible portion.

2) The fruit shall reach an appropriate degree of development in accordance with criteria proper to the variety and conditions in which they are grown. The fruit are able to ripen after harvest with acceptable quality.

3) The condition of the fruit shall be such as to enable them:

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.



- 4) The pesticide residue, heavy metals and microbial content of the fruit shall not exceed the maximum limits specified in the Food Act 1983 and Food Regulations 1985.
- 5) Marketing of the fruit shall comply with the Federal Agricultural Marketing Authority Act 1965 [Act 141] and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.
- 6) Export and Import of the fruit shall comply with the Malaysian Quarantine and Inspection Services Act 2011 [Act 728].

GRED

The fruits are classified in three quality classes as defined in table.

Quality gred and requirements of fresh durian

Grade	Requirement	Tolerance (maximum)
Premium	• The fruit has superior quality with the characteristics of the variety. • The fruit shall carry a minimum of 5 developed locules except for D24 variety (4 developed locules) and D2 variety (3 developed locules). • The fruit is free from crack skin, defects, and/or damages that do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1.
1	• The fruit has superior quality with the characteristics of the variety. • The fruit shall carry a minimum of 5 developed locules except for D24 variety (4 developed locules) and D2 variety (3 developed locules). • Slight defects and/or damages, including crack skin may be allowed provided these do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package.	• damage not exceeding 5% • defect not exceeding 5% and • 10% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2.

2

- The fruit in this grade include those which do not qualify for higher grades, but satisfy the minimum requirements specified in section 4.1.
- The fruit shall carry minimum of 2 developed locules.
- Slight defects and/or damages, including crack skin, may be allowed provided these do not affect the fruit pulp.

- damage not exceeding 5%
- defect not exceeding 10% and
- 15% by number or weight of the fruit satisfying the requirements of this grade.

SAIZ

Size of fresh durian based on weight

Size code		Weight per fruit (kg)		
		Large variety	Medium variety	Small variety
XXL	1	> 4.0	-	-
XL	2	3.1 to 4.0	> 2.5	-
L	3	2.1 to 3.0	1.6 to 2.5	> 2.0
M	4	1.1 to 2.0	1.1 to 1.5	1.1 to 2.0
S	5	0.5 to 1.0	0.5 to 1.0	0.5 to 1.0

For all sizes, the size tolerance is 10% by number or weight of fruit corresponding to the size immediately above an/or below that indicated on the package.

The fruit shall be categorised into large, medium, and small variety as in table based on its varietal characteristics.

Categorised of selected fresh durian varieties based on sizes

VARIETY		
LARGE	MEDIUM	SMALL
D159 (Monthong) D160 (Tekka/Musang Queen)	D2 (Dato Nina) D24 D123 (Chanee) D145 (Beserah) D158 (Kan Yau) D163 (Horlor) D168 (IOI/Hajah Hasmah) D175 (Udang Merah) D188 (MDUR78) D190 (MDUR88) D197 (Raja Kunyit/Musang King) D200 (Duri Hitam/Ochee) Durian Kampung	D13 D99 (Kop Kecil) D198 (Golden Phoenix/Kim Hong)



DURIAN BELANDA

English: Soursop

Nama Botani: *Annona muricata* L.

Rujukan Standard

MS 2704: 2018 Fresh soursop
(*Annona muricata* L.)

KEPERLUAN MINIMA

In all grades, subject to the special provisions for each grade and tolerances allowed, the fruit shall be:

- whole
- with peduncle intact and smoothly cut not exceeding 1 cm in length
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- fresh in appearance, have a shape, colour and taste characteristic of the species and
- free of pronounced blemishes.

The development and condition of the fruit shall be such as to enable them to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.

The pesticide residue, heavy metals and microbial content of the fruit shall not exceed the maximum limits specified in the Food Regulations 1985.



Marketing of the fruit shall comply with the Federal Agricultural Marketing Authority Act 1965 [Act 141] and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008 such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination

GRED

The fruits are classified in three quality classes as defined in table.

Grade	Requirement	Tolerance per lot (max)
Premium	• similar varietal characteristics and • free of damages and defects or very slight defects are allowed.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1.
1	• similar varietal characteristics • practically free from damages and • defects and • slight defect of the skin and other superficial defects not exceeding 5 % of the total surface area.	• damage not exceeding 5% • defect not exceeding 10% and • 10% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2.
2	• similar varietal characteristics • satisfy the minimum requirements specified in Clause 4, but do not qualify for inclusion in the higher grades • slight defect of the skin and other superficial defects not exceeding 10 % of the total surface area and • retain the general quality appearance, keeping quality of the fruit and presentation in the package.	• damage not exceeding 5% • defect not exceeding 10% and • 15% by number or weight of the fruit satisfying the requirements of this grade

SAIZ

The fruit shall be classified into four sizes as described in table:

Size classification	Weight (g)
XL	> 2000
L	1501 to 2000
M	1001 to 1500
S	< 1000



KEPERLUAN MINIMA

a) In all classes, subject to the special provisions for each class and the tolerances allowed, the apples must be:

- whole, the stalk (stem) may be missing, provided the break is clean and the adjacent skin is not damaged
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- firm
- clean, practically free of any visible foreign matter
- practically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- free of damage caused by low and/or high temperatures



b) The apples must have colour that is characteristic of the variety and the area in which they are grown.

The development and condition of the apples must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.

GRED

In accordance with the defects allowed in the Annex - Maximum Allowance for Defects, apples are classified in three classes defined below:

i) “Extra” Class

Apples in this class must be of superior quality. The flesh must be sound. They must be characteristic of the variety. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package².

ii) Class I

Apples in this class must be of good quality. The flesh must be sound. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package²:

- a slight defect in shape and development
- a slight defect in colouring
- slight skin or other defects (see the Annex).

iii) Class II

This class includes apples which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the apples retain their essential characteristics as regards the quality, the keeping quality and presentation²:

- defects in shape and development
- defects in colouring
- skin or other defects (see the Annex).

²Skin and other defects must not exceed the limits as defined in the Annex.

Quality Tolerances

The application of the following tolerances should take into accounts that at stages following export; products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the “Extra” Class, a slight deterioration due to their development and their tendency to perish.

i) “Extra” Class

Five percent by number or weight of apples not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class. Included therein shall be allowed not more than 1.0% for apples affected by decay or internal breakdown.

ii) Class I

Ten percent by number or weight of apples not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class. Included therein shall be allowed not more than 1% for apples affected by decay or internal breakdown

iii) Class II

Ten percent by number or weight of apples satisfying neither the requirements of the class nor the minimum requirements, with the exception of apples affected by decay or internal breakdown that should not be more than 2%. Included therein shall be allowed, a maximum of 2% by number or weight of fruit which may show the following defects:

- cork-like blemishing (bitter pit)
- slight damage or unhealed broken skin/cracks
- presence of internal feeding insects/pests or damage to the flesh caused by pests

SAIZ

Size is determined by maximum diameter of the equatorial section or by weight of each apple. For all varieties and all classes the minimum size is 60 mm if measured by diameter or 90 g if measured by weight. Fruit of smaller sizes may be accepted provided the Brix level of the produce meets or exceeds 10.50 Brix and the size is not smaller than 50 mm or 70 g.

For all classes of fruit subjected to rules of uniformity, 10% by number or weight of apples not meeting the size indicated on the package. This tolerance may not be extended to include produce with a size below 50 mm or 70 g if the refractometric index is below 10.5°Brix



JAMBU AIR/JAMBU SEMARANG

English: Water apple

Nama Botani: *Syzygium
samarangense*

Rujukan Standard

MS 2649: 2015 Fresh wax apple
(*Syzygium samarangense*) -
Specification

KEPERLUAN MINIMA

The fruit shall be:

- whole, firm, fresh, clean and mature
- practically free from damages
- free of abnormal external moisture excluding condensation following withdrawal from cold storage
- fairly well-formed
- free from foreign odour and/or taste and
- sweetness as reflected by total soluble solids is not less than 8° Brix.

The development and condition of the fruit shall be such as to enable them to:

- withstand transport and handling; and
- arrive in satisfactory condition at the place of destination.



GED

The fruit shall be classified into Grade Premium, Grade 1 and Grade 2 as in table .

Grade	Quality requirements	Tolerances
Premium	• similar varietal characteristics • free of damages and defects or very slight defects are allowed provided these do not affect the general quality, appearance, keeping quality of the fruit and presentation in the package and • uniform in size.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1.
1	• similar varietal characteristics • practically free from damages and defects provided these do not affect general quality, appearance, keeping quality of the fruit and presentation in the package and • practically uniform in size.	• damage not exceeding 5% • defects not exceeding 5% • non uniform sizes not exceeding 5% and 10% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2.
2	• similar varietal characteristics • reasonably free from damages and defects provided these do not affect general quality, appearance, keeping quality of the fruit and presentation in the package and • reasonably uniform in size.	• damage not exceeding 5% • defects not exceeding 10% • non uniform sizes not exceeding 10% and 10% by number or weight of the fruit satisfying the requirements of this grade.

SAIZ

The size for the fruit is given in table

Size	Weight per fruit (g)
S	50 to 60
M	61 to 90
L	91 to 120
XL	>120



JAMBU BATU

English: Guava

Nama Botani: *Psidium Guajava* L.

Rujukan Standard

MS 1149: 2014 Fresh guavas -
Specification
(First revision)

KEPERLUAN MINIMA

The fruit shall be:

- whole, firm, fresh, clean and mature but not over-ripe
- practically free from damages caused by mechanical and chilling injuries, pests and diseases
- free of abnormal external moisture excluding condensation following withdrawal from cold storage
- fairly well-formed and
- free from foreign odour and/or taste.

The development and condition of the fruit shall be such as to enable them to:

- withstand transport and handling; and
- arrive in satisfactory condition at the place of destination.



GREED

Fresh guavas shall be of similar varietal characteristics and graded to grades premium, 1 and 2 as specified in table .

Grade	Quality requirements	Tolerances
Premium	• well formed • of uniform size • free from damages and • free of defects, with the exception of very slight superficial blemishes, provided these do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package.	5% by number or weight of guavas not satisfying the requirements of this grade, but meeting those of Grade 1.
1	• 5% not well formed is allowed • 5% not of uniform size is allowed • free from damages and • slight discolouration and other superficial defects such as sunburns, blemishes and scabs not exceeding 5% of the total surface area are allowed, provided these do not affect the general of the produce, the internal quality, the keeping quality and presentation in the package. The defects shall not, in any case, affect the pulp of the fruit.	10% by number or weight of guavas not satisfying the requirements of this grade, but meeting those of Grade 2.
2	• satisfy the minimum requirements specified in 4.1 and • slight discolouration and other superficial defects such as sunburns, blemishes and scabs not exceeding 10% of the total surface area are allowed, provided these do not affect the general appearance of the produce, the internal quality, the keeping quality and presentation in the package. The defects shall not, in any case, affect the pulp of the fruit.	10% by number or weight of guavas satisfying neither the requirements of this grade nor the minimum requirements.

Table 1.The size codes for fresh guavas are given in table .

Size Code	Weight per fruit (g)	
	Seeded	Seedless
A	More than 450	More than 300
B	351 to 450	251 to 300
C	250 to 350	200 to 250

5.2.2. The size tolerance for each size code is 10% by number or weight of fruit as specified in table 1.



JAMBU BOL

English: Malay apple

Nama Botani: *Syzygium malaccense* L.

Rujukan Standard

FS 089: 2016 – STANDARD UMUM
BUAH DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



KEDONDONG

English: Greathog plum/ Otaheite apple/
Golden apple

Nama Botani: *Spondias cytherea*
Sonn.

Rujukan Standard

FS 065: 2013 STANDARD
KEDONDONG

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- Buah hendaklah bersih dan segar
- Buah masih bertampuk.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan- Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan- Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Kedondong dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 15

SAIZ

Bagi Kedondong, saiz ditentukan oleh diameter dalam unit sentimeter (sm) seperti jadual:

Saiz	Kod saiz		Diameter (sm)
KECIL	S	1	< 3.0
SEDANG	M	2	3.0 - 4.0
BESAR	L	3	> 4.0



KUINI

English: Fragrant mango

Nama Botani: *Mangifera odorata* Griff.

Rujukan Standard

FS066:2013 STANDARD KUINI

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- Masih bertangkai dan panjangnya hendaklah tidak kurang daripada 0.5 cm.
- Sisa racun perosak, logam berat dan mikrobial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Kuini dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 3 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 20% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Kuini, saiz ditentukan oleh berat dalam unit gram (g) seperti mana jadual:

Saiz	Kod saiz		Berat (g)
KECIL	S	1	100 – 200
SEDANG	M	2	> 200 – 300
BESAR	L	3	> 300



KUNDANG

English: Gandaria/ Marian mango

Nama Botani: *Bouea macrophylla* Griff.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM
BUAH DAN SAYUR SEGAR

KEPERLUAN MINIMA

- a) Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- b) Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- c) Hendaklah mempunyai varieti yang sama.
- d) Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter

KURMA

English: Dates

Nama Botani: *Phoenix dactylifera* L.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR



KEPERLUAN MINIMA

- a) Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- b) Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- c) Hendaklah mempunyai varieti yang sama.
- d) Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



LAICI

English: Litchi/lychee

Nama Botani: *Litchi chinensis* Sonn.

Rujukan Standard

CODEX STAN 196-1995 STANDARD
FOR LITCHI

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the litchis must be:

- whole
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- free of damage and abrasion
- practically free of brown markings.
- The litchis must be sufficiently developed and mature.

The development and condition of the litchis must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.

The colouring of litchis may vary from pink to red in the case of untreated litchis; from pale yellow to pink for litchis that have been fumigated with sulphur dioxide.



GRED

Litchis are classified in three classes defined below:

i) “Extra” Class

Litchis in this class must be of superior quality. They must have the shape, development and colouring that are typical of the variety or varietal type. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Litchis in this class must be of good quality. They must be characteristic of the variety or varietal type. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight misshaping
- slight defects in colouring
- slight skin defects provided these do not exceed a total area of 0.25 cm².

iii) Class II

This class includes litchis which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the litchis retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- skin blemishes provided these do not exceed a total area of 0.5 cm²

Quality Tolerances

i) “Extra” Class

Five percent by number or weight of litchis not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of litchis not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of litchis satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the maximum equatorial diameter.

- The minimum size for “Extra” Class is 33 mm.
- The minimum size for Classes I and II is 20 mm.
- A maximum size range of 10 mm between fruit in each package is permitted.

Size Tolerances

For all classes, 10% by number or weight of litchis not satisfying the requirements as regards the minimum size, provided, however, that the diameter is not less than 15 mm in all classes, and/or the maximum size range of 10 mm.

LANGSAT

English: Langsat

Nama Botani: *Lansium domesticum* Correa

Rujukan Standard

ASEAN STANDARD FOR LANSIUM
(ASEAN Standard 8:2008)



KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the lansium must be:

- Whole (with or without calyx and pedicel)
- show characteristics of the variety or cultivar in terms of :
 - freshness
 - shape
 - colour
 - taste
 - firmness and
 - others (e.g. cork cells or brown specks)
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free from visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of bruising or clearly visible defects on the skin
- practically free of damage caused by low and/or high temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage



- free of any foreign smell and/or taste.

The lansium must have been carefully picked and have reached an appropriate degree of ripeness, in accordance with the characteristics of the variety and/or commercial type and to the area in which they are grown.

The development and condition of the lansium must be such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination

GED

Lansiums are classified in three classes defined below:

i) "Extra" Class

Lansium in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

i) Class I

Lansium in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape
- slight defects in colouring
- slight skin defects (i.e., mechanical bruising, sun spots and latex burns). The total area affected shall not exceed 10% of the total surface area
- slight marks caused by pests

The defects must not, in any case, affect the pulp of the fruit.

ii) Class II

This class includes lansium which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following may be allowed, provided the lansium retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- skin defects (i.e., mechanical bruising, sun spots and latex burns). The total area affected should not exceed 15% of the total surface
- slight marks caused by pests.

The defects must not, in any case, affect the pulp of the fruit.

Quality Tolerances

i) "Extra" Class

Ten percent (10%) by weight of lansiums not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Twenty percent (20%) by weight of lansiums not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Twenty percent (20%) by weight of lansiums satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the individual fruit or bunch, in accordance with the following table:

For fruit

Size code	Weight (grams/fruit)
1	> 40
2	36 - 40
3	31 - 35
4	21 - 30
5	10 - 20

For bunch

Size code	Weight (grams/bunch)
1	> 700
2	501 – 700
3	301 – 500
4	201 – 300
5	100 – 200

For all classes, and 20% by weight for individual fruit and bunch, corresponding to the size immediately above and/or below that indicated on the package.



LIMAU

English: Citrus

Nama Botani: *Citrus* L.

Rujukan Standard

FS 091: 2018 STANDARD LIMAU MANIS

KEPERLUAN MINIMA

- a) Hendaklah segar, bersih dan bebas daripada kecederaan oleh perosak dan/atau penyakit.
- b) Hendaklah agak bebas daripada kecederaan mekanikal, fisiologi dan kecacatan.
- c) Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ia ditanam.
- d) Hendaklah mempunyai varieti yang sama dalam satu bungkusan
- e) Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.
- f) Dalam satu bungkusan dibenarkan dua (2) indeks yang berhampiran. Contoh indeks 2 dan indeks 3, indeks 3 dan indeks 4, indeks 4 dan indeks 5.



GRED

Limau dikelaskan kepada tiga (3) gred, bergantung kepada spesifikasi seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Limau hendaklah: • daripada varieti yang sama • bebas daripada kerosakan dan/atau kecacatan • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% mengikut bilangan atau berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi keperluan Gred 1.
1	Limau hendaklah: • daripada varieti yang sama • agak bebas daripada kerosakan dan/atau kecacatan. Kesan ini hendaklah tidak melebihi 5% daripada keseluruhan permukaan kulit. • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% mengikut bilangan atau berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi keperluan Gred 1.

2

Limau dalam gred ini tidak mencapai spesifikasi Gred Premium dan Gred 1 tetapi memenuhi keperluan minimum di klausa 5

Limau hendaklah:

- daripada varieti yang sama
- agak bebas daripada kerosakan dan/atau kecacatan. Kesan ini hendaklah tidak melebihi 10% daripada keseluruhan permukaan kulit
- mempunyai kematangan yang seragam
- mempunyai saiz yang seragam
- dikekalkan kualiti dan persembahan dalam pembungkusan

Kerosakan hendaklah tidak melebihi 5%.

Maksimum 15% mengikut bilangan atau berat yang tidak mencapai keperluan Gred atau keperluan minimum.

SAIZ

Bagi limau, saiz ditentukan oleh berat dalam unit gram (g) atau diameter dalam unit milimeter (mm) seperti jadual:

Saiz	Kod	Limau madu		Limau langkat	
		Berat (g)	Diameter (mm)	Berat (g)	Diameter (mm)
LEBIH BESAR	XL	> 200	> 85	> 160	>80
BESAR	L	161 - 200	76 - 85	121 - 160	71 - 80
SEDANG	M	121 - 160	66 - 75	81 - 120	61 - 70
KECIL	S	80 - 120	55 - 65	50 - 80	50 -60

Bagi semua saiz, kelonggaran saiz yang dibenarkan adalah sebanyak 10% mengikut bilangan atau berat buah yang sepadan dengan saiz yang di atas dan/atau di bawah yang dinyatakan dalam pembungkusan.

LIMAU BALI

English: Pomelo

Nama Botani: *Citrus maxima* (Burm.)

Rujukan Standard

MS 2202: 2008 (Fresh pummelo Specification)



KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the pummelo shall be:

- a) whole
- b) sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- c) clean, practically free of any visible foreign matter
- d) practically free of pests affecting the general appearance of the produce
- e) practically free of damage caused by pests
- f) free of abnormal external moisture, excluding condensation following removal from cold storage
- g) free of any foreign smell and/or taste
- h) firm
- i) free of damage caused by low temperatures and
- j) practically free of bruises



The pummelo shall have been carefully picked and have reached an appropriate degree of development and ripeness in accordance with criteria proper to the variety and/or commercial type and to the area in which they are grown.

The development and condition of the pummelo shall be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination

GED

Pummelo is classified in three quality grades as defined in table.

Grade	Requirement	Tolerance
Premium	Pummelo in this grade shall be of superior quality. They shall be characteristic of the variety and/or commercial type. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.	5% by number or weight of pummelo not satisfying the requirements of the grade, but meeting those of Grade 1 or, exceptionally, coming within the tolerances of that grade.
1	Pummelo in this grade shall be of good quality. They shall be characteristic of the variety and/or commercial type. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package: a) slight defects in shape b) slight defects in skin colour c) slight skin defects inherent during the fruit development and d) slight healed skin defects due to mechanical causes The total area affected shall not exceed 10 %. The defects shall not, in any case, affect the pulp of the fruit.	10% by number or weight of pummelo not satisfying the requirements of the grade, but meeting those of Grade 2 or, exceptionally, coming within the tolerances of that grade.

2

This grade includes pummelo which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Clause 4 above. The following defects, however, may be allowed, provided the pummelo retain their essential characteristics as regards the quality, the keeping quality and presentation:

- a) defects in shape
- b) defects in skin colour and
- c) healed skin defects.

The total area affected shall not exceed 15 %.

The defects shall not, in any case, affect the pulp of the fruit.

10 % by number or weight of pummelo satisfying neither the requirements of the grade nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the fruit, in accordance with table.

Size code	Unit weight (g)
S	600 – 900
M	901 – 1200
L	1201 – 1500
XL	> 1500

For all classes, 10 % by number or weight of pummelo corresponding to the size immediately above or below that indicated on the package is allowed.



LIMAU KASTURI

English: Calamansi/ Calamondin/ Musk lime

Nama Botani: *Citrus × microcarpa* Bunge.

Rujukan Standard

FS 060: 2013 – Standard Limau Kasturi

KEPERLUAN MINIMA

- a) Telah mencapai tahap kematangan yang dikehendaki oleh pasaran.
- b) Agak bebas daripada rosak dan kecacatan disebabkan oleh kecederaan mekanikal, perosak atau penyakit dan selamat untuk dimakan.
- c) Masih bertangkai.
- d) Sisa racun perosak, logam berat dan microbial hendaklah tidak melebihi paras maksimum residu yang ditetapkan dalam Akta Makanan 1983 (Akta 281) dan Peraturan-Peraturan Makanan 1985 serta Peraturan-Peraturan Kebersihan Makanan 2009.
- e) Hendaklah mematuhi Akta Lembaga Pemasaran Pertanian Persekutuan 1965 (Akta 141) dan Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008.



GRED

Limau Kasturi dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 5% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 5 ≤ 5 ≤ 3 ≤ 3 ≤ 5
1	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 10% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 5 ≤ 5 ≤ 5 ≤ 10
2	la hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz Maksimum 15% dari segi bilangan atau berat hasilan yang dibenarkan di dalam setiap bungkusan.	≤ 10 ≤ 10 ≤ 10 ≤ 10 ≤ 10

SAIZ

Bagi Limau Kasturi, saiz ditentukan oleh diameter dalam unit sentimeter (sm) sepertimana jadual:

Saiz	Kod saiz		Diameter (sm)
KECIL	S	1	< 2.5
SEDANG	M	2	2.5 - 3.0
BESAR	L	3	> 3.0



LIMAU NIPIS

English: Lime/key lime

Nama Botani: *Citrus aurantifolia* Swing.

Rujukan Standard

FS 035: 2006 – Standard Limau Nipis

KEPERLUAN MINIMA

- a) Agak bebas daripada rosak disebabkan oleh kecederaan mekanikal, perosak dan penyakit.
- b) Agak bebas daripada kecacatan dan sesuai untuk dimakan oleh manusia.
- c) Telah mencapai tahap kematangan yang mencukupi seperti yang dikehendaki oleh pasaran.



GRED

Limau nipis dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas daripada kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 5% Kecacatan < 5% Keseragaman saiz < 5%
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah agak bebas daripada kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah hampir bebas daripada kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 10% Kecacatan < 10% Keseragaman saiz < 10%

SAIZ

Limau nipis, saiz ditentukan oleh berat dan garis pusat dalam unit seperti jadual:

Saiz	Kod saiz	Berat (g)	Garis pusat (mm)
TERLALU BESAR	XL	> 60	> 50
BESAR	L	51 - 60	46 - 50
SEDANG	M	41 - 50	41 - 45
KECIL	S	31 - 40	35 - 40



LIMAU MANDARIN

English: Mandarin Orange / Tangerine
Nama Botani: *Citrus Reticulata Blanco*

Rujukan Standard

MS 232:1974 (CONFIRMED:2012)
Specification for Malaysian Mandarins
for fresh fruit consumption

KEPERLUAN MINIMA

- a) Mandarins for fresh-fruit consumption shall consist of sound and firm fruits of one variety. The fruits shall be clean, of normal shape and appearance common to the variety, and of reasonably even colour.
- b) Fruit in a consignment shall be mature.

SAIZ

Mandarins shall be classified on the basis of fruit-diameter as given in table :

Size designation	Size diameter in mm
Size 1	above 70 mm
Size 2	60 - 69 mm
Size 3	50 - 59 mm

The minimum size for all grades of Mandarins shall be 50 mm, measured as diameter of fruit.



GRED

There shall be 3 grades of citrus namely Grade A, Grade B and Grade C.



LOKUAT

English: Loquat

Nama Botani: *Eriobotrya japonica*
(Thunb.) Lindl.

Rujukan Standard

FS 089: 2016 - STANDARD UMUM
BUAH DAN SAYUR SEGAR

KEPERLUAN MINIMA

- a) Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- b) Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- c) Hendaklah mempunyai varieti yang sama.
- d) Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- a) Ukuran berat
- b) Ukuran panjang
- c) Ukuran diameter

MANGGA

English: Mango

Nama Botani: *Mangifera indica* L.

Rujukan Standard

MS 885: 2012 Fresh mangoes -
Specification (First revision)



KEPERLUAN MINIMA

The fruit shall be:

- a) firm, fresh, clean, well-formed and mature but not over-ripe
- b) free of damages caused by pests and diseases
- c) practically free from skin damages caused by mechanical means and black necrotic stains or trails
- d) free from bruises cuts and scratches that reach the flesh
- e) free of chilling injuries and abnormal external moisture excluding condensation following withdrawal from cold storage and
- f) free of foreign odour and/or taste.

When a peduncle is present, it shall be no longer than 0.5 cm and the cut shall be clean.

The development and condition of the fruit must be such as to enable them to:

- a) withstand transport and handling
- b) arrive in satisfactory condition at the place of destination.



GRED

The fruit is classified into three quality grades as in table.

Grade	Requirements	Tolerances
Premium	The fruits shall be of superior quality with characteristics of the variety. They shall be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	5% by number or weight of fruit not satisfying the requirements of Premium Grade, but meeting those of Grade 1 or exceptionally, coming within the tolerances of that grade.
1	The fruits shall be of good quality with characteristics of the variety. They shall be slightly free from defects, with the exception of slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	10% by number or weight of fruit not satisfying the requirements of Grade 1, but meeting those of Grade 2 or exceptionally, coming within the tolerances of that grade.
2	This grade includes the fruits which do not qualify for inclusion in the higher grade but satisfy the minimum requirements specified in Clause 4. Slight superficial defects may be allowed provided these do not affect the flesh of the fruit.	10% by number or weight of fruit satisfying neither the requirements of the grade nor the minimum requirements, with the exception of produce affected by rotting, or any other deterioration rendering it unfit for consumption.

SAIZ

Provision concerning size codes are as specified in table.

Size code	Weight per fruit (g)
A	> 600
B	> 500 - 600
C	> 400 - 500
D	> 300 - 400
E	> 200 - 300
F	150 - 200

For all size classifications, the size tolerance is 10 % by number or weight of fruit not conforming to the size immediately above or below the size range specified.



MANGGA CHOKANAN

English: Chokanan mango

Nama Botani: *Mangifera indica* L. var.
Chokanan

Rujukan Standard

MS 1859: 2005 (CONFIRMED:2015)
Fresh chokanan mango - Specification

KEPERLUAN MINIMA

i) The fruit shall be:

- mature, whole, firm, sound, fresh in appearance and clean
- practically free of damage caused by pests, black necrotic stains or trails and
- free of marked bruising, cuts and scratches reaching the flesh, chilling injury, chemical and sap burns, abnormal external moisture excluding condensation following withdrawal from cold storage, foreign odour and/or taste.

ii) When a peduncle is present, it shall not be longer than 1.0 cm.

iii) The maturity indices of Chokanan mango are shown in Annex A.

iv) The fruit shall comply with those maximum residue limits as specified in the Malaysian Food Act 1983 and Food Regulations 1985.



GRED

The fruit shall be graded to grades Premium, 1 and 2 according to their appearance, quality and conditions as shown in table.

Grade	Requirements	Tolerances
Premium	The fruit shall be of superior quality, characteristic of the variety, free from defects with exception of very slight superficial defects, provided that these do not affect the general appearance of the produce, the quality, keeping quality and presentation in the package.	Fruit which do not meet these requirements shall not exceed 5% by count but shall conform to the next lower grade.
1	The fruit shall be of good quality and characteristic of the variety. Slight defects of shape and of skin due to rubbing or sunburn, suberized stains due to resin exudation including elongated trails and healed bruises not exceeding 5 % of the surface area may be allowed provided that these do not affect the general appearance of the produce, the quality, keeping quality and presentation in the package.	Fruit which do not meet these requirements shall not exceed 10% by count but shall conform to the next lower grade.

2

This grade includes the fruit which do not qualify for inclusion in the higher grade but satisfy the minimum requirements specified in Clause 4. Defects of shape and of skin due to rubbing or sunburn, suberized stains due to resin exudation including elongated trails and healed bruises not exceeding 10% of the surface area may be allowed provided that the fruit retain essential characteristic as regards the quality, keeping quality and presentation.

Fruit which do not meet these requirements shall not exceed 10% by count but not affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

SAIZ

The size classification within the grade of the fruit shall be as given in table.

Size	Weight (g)
EXTRA LARGE	> 400
LARGE	301 - 400
MEDIUM	201 - 300
SMALL	150 - 200



MANGGIS

English: Mangosteen

Nama Botani: *Garcinia mangostana* L.

Rujukan Standard

MS2703:2018 Fresh mangosteen
(*Garcinia mangostana* L.) –
Specification

KEPERLUAN MINIMA

In all grades, subject to the special provisions for each grade and tolerances allowed, the fruit shall be:

- a) whole
- b) with the calyx and pedicel intact
- c) sound, produce affected by deterioration such as hardening to make it unfit for consumption is excluded
- d) clean, practically free of any visible foreign matter
- e) practically free of pests affecting the general appearance of the produce
- f) practically free of damage caused by pests
- g) free of abnormal external moisture, excluding condensation following removal from cold storage
- h) free of any foreign smell and/or taste
- i) fresh in appearance, have a shape, colour and taste characteristic of the species and
- j) free of pronounced blemishes.

The development and condition of the fruit shall be such as to enable them to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.



The pesticide residue, heavy metals and microbial content of the fruit shall not exceed the maximum limits specified in Food Regulations 1985.

Marketing of the fruit shall comply with the Federal Agricultural Marketing Authority Act 1965 [Act 141] and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.

GRED

The fruit shall be classified into three grades as described in table.

Grade	Requirements	Tolerances
Premium	• similar varietal characteristics • free of damages and defects or very slight defects are allowed and • uniform in size.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1
1	• similar varietal characteristics • practically free from damages and defects • slight defect of the skin and other superficial defects not exceeding 10 % of the total surface area and • practically uniform in size.	• damage not exceeding 5% • defect not exceeding 5% and • 10 % by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2
2	• similar varietal characteristics • satisfy the minimum requirements specified in Clause 4, but do not qualify for inclusion in the higher grades • slight defect of the skin and other superficial defects not exceeding 10 % of the total surface area • retain the general quality appearance, keeping quality of the fruit and presentation in the package; and reasonably uniform in size.	• damage not exceeding 5% • defect not exceeding 10% and • 15% by number or weight of the fruit satisfying the requirements of this grade

SAIZ

The fruit shall be classified into five sizes as described in table.

Size code	Weight per fruit (g)
XL	> 125
L	101 - 125
M	76 - 100
S	51 - 75
XS	30 - 50



MARKISA

English: Passion fruit

Nama Botani: *Passiflora edulis* Sims

Rujukan Standard

FS 070: 2019 STANDARD MARKISA
UNGU (*Passiflora edulis sims forma
edulis*)

KEPERLUAN MINIMA

- a) Hendaklah segar, bersih dan bebas daripada kecederaan oleh perosak dan/atau penyakit.
- b) Hendaklah agak bebas daripada kecederaan mekanikal, fisiologi dan kecacatan.
- c) Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ia ditanam.
- d) Hendaklah mempunyai varieti yang sama dalam satu bungkusan.
- e) Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GRED

Markisa ungu dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran
Premium	Markisa ungu kualiti terbaik hendaklah: • daripada varieti yang sama • bebas daripada kerosakan dan/atau kecacatan • mempunyai kematangan seragam • mempunyai saiz seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan	Kerosakan hendaklah tidak melebihi 3%. Maksimum 5% mengikut bilangan atau berat yang tidak mencapai keperluan Gred Premium tetapi memenuhi keperluan Gred 1.
1	Markisa ungu berkualiti baik hendaklah: • daripada varieti yang sama • bebas daripada kecederaan oleh perosak dan/atau penyakit • agak bebas daripada kerosakan mekanikal, fisiologi dan/atau kecacatan • mempunyai kematangan yang seragam • mempunyai saiz yang seragam dan • dikekalkan kualiti dan persembahan dalam pembungkusan.	Kerosakan hendaklah tidak melebihi 5%. Maksimum 10% mengikut bilangan atau berat yang tidak memenuhi keperluan Gred 1 tetapi memenuhi Gred 2.

2

Markisa ungu dalam gred ini tidak mencapai spesifikasi Gred Premium dan Gred 1 tetapi memenuhi keperluan minimum di klausa 5 Markisa hendaklah:

- daripada varieti yang sama
- bebas daripada kecederaan oleh perosak dan/atau penyakit
- agak bebas daripada kerosakan mekanikal, fisiologi dan/atau kecacatan
- mempunyai kematangan yang seragam
- mempunyai saiz yang seragam dan
- dikekalkan kualiti dan persembahan dalam pembungkusan.

Kerosakan hendaklah tidak melebihi 5 %.

Maksimum 15 % mengikut bilangan atau berat yang tidak memenuhi keperluan Gred 2 tetapi memenuhi keperluan minimum.

SAIZ

Bagi markisa ungu, saiz ditentukan oleh berat dalam unit gram (g) atau diameter dalam unit milimeter (mm) seperti jadual:

Saiz	Saiz kod		Berat (g)	Diameter (mm)
LEBIH BESAR	XL	1	> 140	> 80
BESAR	L	2	111 – 140	71 – 80
SEDANG	M	3	81 – 110	61 – 70
KECIL	S	4	50 – 80	50 – 60

Bagi semua saiz, kelonggaran saiz yang dibenarkan adalah sebanyak 10% mengikut bilangan atau berat buah yang sepadan dengan saiz yang di atas dan/atau di bawah yang dinyatakan dalam pembungkusan.



LONGAN

English: Longan

Nama Botani: *Dimocarpus Longan* Lour

Rujukan Standard

FS 089: 2016 – STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



NANGKA

English: Jackfruit

Nama Botani: *Artocarpus heterophyllus*
Lam

Rujukan Standard

MS 1055: 2016 Fresh jackfruit -
Specification (Second revision)

KEPERLUAN MINIMA

In all classes, subjected to the special provisions for each class and tolerances allowed, the fruit shall be:

- whole, firm, fresh, clean and mature but not over-ripe
- free of any damages
- free of any foreign odour and/or taste
- free of abnormal external moisture excluding condensation following withdrawal from cold storage
- fairly well-formed and
- well-trimmed peduncle.

The development and condition of the fruit shall be such that the fruit is able to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.

Pesticide residue, heavy metals and microorganism shall not exceed the maximum limits prescribed by the Food Act 1983 (Act 281) and the Food Regulations 1985.

The fruit shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act 141) and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.



GRED

The fruit shall be classified into three grades as in table.

Grade	Requirements	Tolerances
Premium	• similar varietal characteristics • free from damages and defects or very slight defects are allowed provided these do not affect the general quality, appearance, keeping good quality of the fruit and presentation in the package and • uniform in size.	5% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 1
1	• similar varietal characteristics • practically free from damages and defects provided these do not affect general quality, appearance, keeping good quality of the fruit and presentation in the package • slight defect of the skin and other superficial defects not exceeding 10% of the total surface area and • practically uniform in size.	• damage not exceeding 5 % • defect not exceeding 5 % and • 10% by number or weight of the fruit not satisfying the requirements of this grade, but meeting those of Grade 2.

2

- similar varietal characteristics
- satisfy the minimum requirements specified in Clause 4, but do not qualify for inclusion in the higher grades
- slight defect of the skin and other superficial defects not exceeding
- 15 % of the total surface area
- retain the general quality appearance, keeping good quality of the fruit and presentation in the package and
- reasonably uniform in size.

- damage not exceeding 5%

- defect not exceeding 10% and

- 15% by number or weight of the fruit satisfying the requirements of this grade.

SAIZ

The fruit shall be classified into four sizes as in table.

Size	Weight per fruit (kg)	Tolerance
S	≤ 10	The difference between the smallest and the biggest fruit in the same package shall not be more than 1 kg.
M	> 10 to 15	
L	> 15 to 20	
XL	> 20	



ANONA

English: Custard apple/ Bullock's heart/ Sugar apple

Nama Botani: *Annona squamosa* L.

Rujukan Standard

ASEAN Stan 37: 2014 ASEAN
STANDARD FOR SUGAR APPLE

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the sugar apple must be:

- whole, with peduncle and should not be more than the level of the shoulder of the fruit
- fresh and sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- characteristic of the variety
- clean, practically free of any visible foreign matter
- free from mechanical and physiological damage such as low and/or high temperature
- practically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste

The sugar apple must have been carefully picked and have reached an appropriate degree of development and ripeness in accordance with criteria proper to the variety and to the area in which they are grown.

The development and condition of the sugar apple must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.



GRED

Sugar apples are classified in three classes defined below:

i) “Extra” Class

Sugar apple in this class must be of superior quality. It must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Sugar apple in this class must be of good quality. The following slight defects, may be allowed:

- abnormality in shape and color
- defects on the skin due to scratches, shallow scar and traces of pests damages

The abnormality or defects shall not affect of the general appearance of sugar apple, the flesh quality, the keeping quality and presentation in the package and should not exceed 5% of the total surface area of the fruit.

iii) Class II

This class includes sugar apple which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

The following slight defects, may be allowed:

- abnormality in shape and color
- defects on the skin due to scratches, shallow scar and traces of pests damages

The abnormality or defects must not affect of the general appearance of sugar apple, the flesh quality, the keeping quality and presentation in the package and should not exceed 10% of the total surface area of the fruit.

Quality Tolerances

i) “Extra” Class

Five percent by number or weight of sugar apples not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of sugar apples not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of sugar apples satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight, in accordance with the following table:

Size	Weight per fruit (kg)
1	> 700
2	> 600 - 700
3	> 500 - 600
4	> 400 - 500
5	> 300 - 400
6	> 200 - 300
7	> 100 - 200
8	50 - 100

For all classes, 10% by number or weight of sugar apples corresponding to the size immediately above or below that indicated on the package.



OREN

English: Orange

Nama Botani: *Citrus L.*

Rujukan Standard

CODEX STAN 245-2004 STANDARD
FOR ORANGES

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the oranges must be:

- whole
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- free of damage caused by low and/or high temperatures
- free of damage caused by frost
- free of signs of internal shrivelling
- practically free of bruising and/or extensive healed-over cuts

The oranges must have reached an appropriate degree of development and ripeness account being taken of the characteristics of the variety, the time of picking and the area in which they are grown.



The development and condition of the oranges must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.

Oranges satisfying these requirements may be “degreened”. This treatment is permitted only if the other natural organoleptic characteristics are not modified.

GREED

Oranges are classified in three classes defined below:

i) “Extra” Class

Oranges in this class must be of superior quality. In shape, external appearance, development and colouring, they must be characteristic of the variety and/or commercial type. They must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Oranges in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defect in shape
- slight defect in colouring
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets, etc.
- slight healed defects due to a mechanical cause such as hail damage, rubbing, damage from handling, etc. The defects must not, in any case, affect the pulp of the fruit.

iii) Class II

This class includes oranges which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed, provided the oranges retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defect in shape
- defect in colouring
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets, etc.
- healed defects due to a mechanical cause such as hail damage, rubbing, damage from handling, etc.
- rough skin
- superficial healed skin alterations
- slight and partial detachment of the pericarp/

The defects must not, in any case, affect the pulp of the fruit.

Quality Tolerances

i) “Extra” Class

Five percent by number or weight of oranges not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of oranges not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of oranges satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption. Within this tolerance, a maximum of 5% is allowed of fruit showing slight superficial unhealed damage, dry cuts or soft and shrivelled fruit.

SAIZ

Size is determined by the maximum diameter of the equatorial section of the fruit, in accordance with the following table:

Size code	Diameter (mm)
0	92 – 110
1	87 – 100
2	84 – 96
3	81 – 92
4	77 – 88
5	73 – 84
6	70 – 80
7	67 – 76
8	64 – 73
9	62 – 70
10	60 – 68
11	58 – 66
12	56 – 63
13	53 – 60

Oranges of a diameter below 53 mm are excluded.

Oranges may be packed by count. In this case, provided the size uniformity required by the Standard is retained, the size range in the package may fall outside a single size code, but within two adjacent codes.

Uniformity in size is achieved by the above mentioned size scale, unless otherwise stated, as follows:

(i) for fruit arranged in regular layers in the package, including unit consumer packages, the maximum difference between the smallest and the largest fruit, within a single size code or, in the case of oranges packed by count, within two adjacent codes, must not exceed the following maxima:

Size code	Maximum difference between fruit in the same package in mm
0 to 2	11
3 to 6	9
7 to 13	7

(ii) for fruit not arranged in regular layers in packages and fruit in individual rigid packages for direct sale to the consumer, the difference between the smallest and the largest fruit in the same package must not exceed the range of the appropriate size grade in the size scale, or, in the case of oranges packed by count, the range in mm of one of the two adjacent codes concerned.

(iii) for fruit in bulk bins and fruit in individual non-rigid (nets, bags) packages for direct sale to the consumer, the maximum size difference between the smallest and the largest fruit in the same lot or package must not exceed the range obtained by grouping three consecutive sizes in the size scale.

Size Tolerances

For all classes, 10% by number or weight of oranges corresponding to the size immediately above and/or below that indicated on the package.

The 10% tolerance only applies to fruit whose diameter is not less than 50 mm.



PALA

English: Nutmeg

Nama Botani: *Myristica fragrans*
Houtt.

Rujukan Standard

MS 1308:2012 Nutmeg, whole or broken, and mace, whole or in pieces (*Myristica fragrans* Houtt.) - Specification (First revision) (ISO 6577:2002, MOD)

KEPERLUAN MINIMA

a) Odour and flavour

The odour of nutmeg and mace shall be characteristic and aromatic, that of mace being more pronounced, however. Their flavour is bitter, acrid and hot.

b) Freedom from insects, moulds, etc.

Nutmeg and mace shall be free from living insects and moulds, and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) or with such magnification as may be necessary in any particular case. If the magnification used is greater than $\times 10$, this fact shall be stated in the test report.

c) Extraneous matter

For the purposes of this International Standard, the following are considered to be extraneous matter:

- all vegetable matter other than the kernel and the aril, in particular pieces of shell
- all other extraneous animal, vegetable or mineral matter.



The total content of this extraneous matter, determined using the method specified in ISO 927, shall not exceed 0,5% (by mass).

Nutmeg in mace and, inversely, mace in nutmeg is not considered as extraneous matter but, in both cases, their content shall not be greater than 3% (by mass).

GRED

Nutmegs are classified according to

- the producing region (South-east Asia or West Indies), and
- the category (see Table).

Table - Categories of nutmeg

Category	Commercial designation	Description
1	Whole sound nutmegs	Whole, sound and well-formed nutmegs classified as a function of size.
2	Sound shrivels	Shrivelled, but sound, nutmegs which have not been attacked by insects.
3	BWP (South-east Asia) or defectives (West Indies)	Broken nutmegs or whole nutmegs that have been attacked by insects (but with no living insects and practically free from dead insects). They may have been limed.

Whole nutmegs are sold either as an “assorted” mixture (ABCD), without sorting by size, or by the number of nutmegs to the (English) pound after sizing. For example, “Whole sound nutmegs 80” would indicate nutmegs of category 1, of a size corresponding to 80 to the pound. The most commonly used size ranges in commerce are 60 to 65, 80 to 85, 100 to 110, 110 to 120, 120 to 130 and 130 to 150

SAIZ

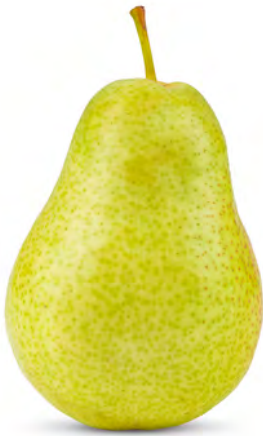
Mace is classified according to the producing region (South-east Asia or West Indies), and the category (see Tables 2 and 3)

Table 2 Table - Categories of Siau-w-type and Banda-type mace

Category		Commercial designation	Description
1		Whole	Whole mace containing not more than 5% of about quarter-size broken pieces.
2	A	Broken mace I	Mace containing at least 75 % of pieces larger than about quarter-size.
	B	Broken mace II	Pieces smaller than quarter-size.
3	A	Sifting I	Small broken pieces.
	B	Sifting II	Very small broken pieces.

Table3 — Categories of Grenada-type mace

Category	Commercial designation	Description
1	Whole No.1	Whole mace, pale yellow in colour, containing not more than 5% of broken pieces.
2	Broken No.2	Pieces ranging from yellow to dark red in colour but, overall, yellow, of at least quarter-size, with a proportion of smaller pieces and dust (less than 5 %).
3	Mace pickings	Dust and discoloured pieces of mace ranging from yellow to black and containing damaged "country" mace.



PIR

English: Pear

Nama Botani: *Pyrus* L.

Rujukan Standard

UNECE STANDARD FFV-51 (2020) –
PEARS

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the pears must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of abnormal external moisture
- free of any foreign smell and/or taste

The development and condition of the pears must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination



GED

Pears are classified in three classes, as defined below:

i) "Extra" Class

Pears in this class must be of superior quality. They must be characteristic of the variety. The flesh must be perfectly sound, and the skin free from rough russeting. They must be free from defects with the exception of very slight superficial defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. The stalk must be intact. Pears must not be gritty.

ii) Class I

Pears in this class must be of good quality. They must be characteristic of the variety. The flesh must be perfectly sound. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in development
- slight defects in colouring
- very slight rough russeting
- slight skin defects, which must not extend over more than
- 2 cm in length for defects of elongated shape
- 1 cm² of total surface area for other defects, with the exception of scab (*Venturia pirina* and *V. inaequalis*), which must not extend over more than 0.25 cm² cumulative in area
- slight bruising not exceeding 1 cm² in area.

The stalk may be slightly damaged. Pears must not be gritty.

iii) Class II

This class includes pears that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The flesh must be free from major defects.

The following defects may be allowed, provided the pears retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in development
- defects in colouring
- slight rough russetting
- skin defects, which must not extend over more than
- 4 cm in length for defects of elongated shape
- 2.5 cm² of total surface area for other defects, with the exception of scab (*Venturia pirina* and *V. inaequalis*), which must not extend over more than 1cm² cumulative in area
- slight bruising not exceeding 2 cm² in area.

Quality tolerances

i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of pears not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

ii) Class I

A total tolerance of 10 per cent, by number or weight, of pears not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

iii) Class II

A total tolerance of 10 per cent, by number or weight, of pears satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

SAIZ

Size is determined by the maximum diameter of the equatorial section or by weight. The minimum size¹ shall be:

a) For fruit sized by diameter:

	Extra class	Class I	Class II
Large fruit varieties	60 mm	55 mm	55 mm
Other Varieties	55 mm	50 mm	45 mm

b) For fruit sized by weight:

	Extra class	Class I	Class II
Large fruit varieties	130 g	110 g	110 g
Other varieties	110 g	100 g	75 g

Summer pears included in the annex to this standard do not have to respect the minimum size.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

a) For fruit sized by diameter:

- 5 mm for “Extra” Class fruit and for Class I and II fruit packed in rows and layers
- 10 mm for Class I fruit packed in sales packages or loose in the package.

b) For fruit sized by weight:

- for “Extra” Class and Class I and II fruit packed in rows and layers:

Range (g)	Weight difference (g)
75 -100	15
100 - 200	35
200 - 250	50
> 250	80

- for Class I fruit packed in sales packages or loose in the package:

Range (g)	Weight difference (g)
100 -200	50
> 200	100

There is no sizing uniformity limit for Class II fruit packed in sales packages or loose in the package.

For all classes: a total tolerance of 10 per cent, by number or weight, of pears not satisfying the requirements as regards sizing is allowed. This tolerance may not be extended to include produce with a size:

- 5 mm or more below the minimum diameter
- 10 g or more below the minimum weight.



PIC

English: Peach

Nama Botani: *Prunus persica* (L.) Batsch

Rujukan Standard

UNECE STANDARD FFV-26 (2017)

PEACHES AND NECTARINES

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, peaches and nectarines must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of fruit split at the stalk cavity
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the peaches and nectarines must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.



GRED

The peaches and nectarines are classified in three classes, as defined below:

i) "Extra" Class

Peaches and nectarines in this class must be of superior quality. They must be characteristic of the variety. The flesh must be perfectly sound. They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Peaches and nectarines in this class must be of good quality. They must be characteristic of the variety. The flesh must be perfectly sound. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in development
- slight defects in colouring
- slight pressure marks not exceeding 1cm² in total surface area
- slight skin defects which must not extend over more than
- 1.5 cm in length for defects of elongated shape
- 1 cm² in total surface area for other defects.

iii) Class II

This class includes peaches and nectarines that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The flesh must be free from major defects. The following defects may be allowed, provided the peaches and nectarines retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in development, including split stones, provided the fruit is closed and the flesh is sound
- defects in colouring
- bruises which may be slightly discoloured and not exceeding 2 cm² in total surface area
- skin defects which must not extend over more than
- 2.5 cm in length for defects of elongated shape
- 2 cm² in total surface area for other defects.

Quality Tolerances

i) "Extra" Class

A total tolerance of 5 per cent, by weight, of peaches and nectarines not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

ii) Class I

A total tolerance of 10 per cent, by weight, of peaches and nectarines not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

iii) Class II

A total tolerance of 10 per cent, by weight, of peaches and nectarines satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

SAIZ

Size is determined either by the maximum diameter of the equatorial section, by weight, or by count. The minimum size shall be:

- 56 mm or 85 g in Class “Extra”
- 51 mm or 65 g in Classes I and II.

However, fruit below 56 mm or 85 g, is not allowed in the period from 1 July to 31 October (northern hemisphere) and from 1 January to 30 April (southern hemisphere).

The following provisions are optional for Class II.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

a) For fruit sized by diameter

- 5 mm for fruit below 70 mm
- 10 mm for fruit of 70 mm and more.

b) For fruit sized by weight

- 30 g for fruit below 180 g
- 80 g for fruit of 180 g and more.

c) For fruit sized by count, the difference in size should be consistent with (a) or (b).

If size codes are applied, those in the table below have to be respected.

	Code	Diameter from (mm) to (mm)	OR	Weight from (g) to (g)
1	D	51 - 56		65 - 85
2	C	56 - 61		85 - 105
3	B	61 - 67		105 - 135
4	A	67 - 73		135 - 180
5	AA	73 - 80		180 - 220
6	AAA	80 - 90		220 - 300
7	AAAA	> 90		> 300

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of peaches and nectarines not satisfying the requirements as regards sizing is allowed.



PISANG

English: Banana

Nama Botani: *Musa* L. (and its various cultivars)

Rujukan Standard

MS 459: 2012 Fresh bananas -
Specification (First revision)

KEPERLUAN MINIMA

The fruit shall be:

- sound, clean, well-formed, mature but not over-ripe
- free of pests and diseases affecting the general appearance of the fruit
- practically free of damage caused by pests
- in fingers, hands or clusters and show a smooth cut from the peduncle (stalk)
- free of damage caused by chilling injury
- free of abnormal external moisture, excluding condensation following removal from cold storage and those packed under modified atmosphere conditions and
- free of any foreign smell and/or taste.

The development and condition of the fruit must be such as to enable them to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.



GRED

The fruit is classified into three quality grades as in table

Grade	Requirements	Tolerances
Premium	The fruits shall be of similar varietal characteristics, well formed and free from blemishes and bruises.	5% by number or weight of fruit not satisfying the requirements of Premium Grade, but meeting those of Grade 1 or exceptionally, coming within the tolerances of that grade.
1	The fruits shall be of similar varietal characteristics, fairly well formed and fairly free from blemishes and bruises provided these do not affect the keeping and eating quality of the fruit.	10% by number or weight of fruit not satisfying the requirements of Grade 1, but meeting those of Grade 2 or exceptionally, coming within the tolerances of that grade.
2	The fruits shall be of similar varietal characteristics and reasonably free from blemishes and bruises provided these do not affect the keeping and eating quality of the fruits. Fruits that are slightly misshapen or with superficial defects are allowed.	10% by number or weight of fruit satisfying neither the requirements of the grade nor the minimum requirements, with the exception of fruits affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Provision concerning size codes are specified as in table.

Size code	Lenght (cm)		Minimum diameter (cm)	
	Berangan	Rastali	Berangan	Rastali
A	>15.0	> 12.0	> 3.0	
B	>12.5 – 15.0	>10.5 – 12.0		
C	>10.0 – 12. 5	>9.0 – 10.5		
D	9.0 – 10.0	8.0 – 9.0	2.5 – 3.0	

For all size classifications, the size tolerance is 10% by number or weight of fruit not conforming to the size immediately above or below the size range specified.



PISANG KAKI

English: Persimmon

Nama Botani: *Diospyros kaki* L.f.

Rujukan Standard

UNECE STANDARD FFV-63 (2020) -
PERSIMMONS

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the persimmons must be:

- Intact, with the calyx attached, which may be with or without peduncle and dry and brown
- Sound; produce affected by rotting or deterioration, such as to make it unfit for consumption, is excluded
- Clean, practically free of any visible foreign matter
- Practically free from pests
- Free from damage caused by pests affecting the flesh
- Free of abnormal external moisture
- Free of any foreign smell and/or taste.

The development and condition of the persimmons must be such as to enable them:

- To withstand transportation and handling
- To arrive in satisfactory condition at the place of destination.



GED

Persimmons are classified in three classes, as defined below:

i) “Extra” Class

Persimmons in this class must be of superior quality. They must be characteristic of the variety. The flesh must be sound. The calyx must be intact. The persimmons must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Persimmons in this class must be of good quality. They must be characteristic of the variety. The flesh must be sound. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- A slight defect in shape
- Slight defects in colouring, caused by the sun, not exceeding 1/8 of the total surface of the fruit
- Slight skin defects not exceeding
- the distance between the pistil end and the calyx in case of fine corky lines running down from the calyx area.
- 1/16 of the total surface of the fruit for other skin defects
- Slight bruising not exceeding 2 cm² cumulative in area
- Slight damage to the calyx
- Slight internal discolouration not exceeding 1/3 of the total cross-section area of the fruit.

iii) Class II

This class includes persimmons that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The flesh must be free from major defects. The following defects may be allowed, provided the persimmons retain their essential characteristics as regards the quality, the keeping quality and presentation:

- Defects in shape
- Defects in colouring, caused by the sun not exceeding 1/4 of the total surface of the fruit
- Skin defects not exceeding
- twice the distance between the pistil end and the calyx for corky lines running down from the calyx area
- 1/8 of the total surface of the fruit for other skin defects
- Slight bruising not exceeding 3 cm² cumulative in area
- Damage to the calyx
- Slight internal discolouration not exceeding 1/2 of the total cross-section area of the fruit.

Quality tolerances

i) “Extra” Class

A total tolerance of 5 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

ii) Class I

A total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

iii) Class II

A total tolerance of 10 per cent, by number or weight, of persimmons satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

SAIZ

Size is determined by the maximum diameter of the equatorial section, by the weight of the fruit or by count of fruit per package.

To ensure uniformity in size, the range in size between produce in the same package shall be:

- For persimmons sized by diameter: not exceeding 20 mm
- For persimmons sized by weight: in accordance with the table below:

Weight in grams	Maximum permissible difference between fruit within the package in grams
50 - 90	20
85 - 130	25
125 – 190	35
180 – 230	50
> 220	70

- For persimmon sized by count: consistent with point (a). Uniformity in size is compulsory for Classes “Extra” and I.

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements as regards sizing is allowed.



PISANG MAS

English: 'Mas' bananas

Nama Botani: *Musa sapientum* cv. mas

Rujukan Standard

MS 1075: 1987 (CONFIRMED:2012)

Export specification for fresh 'mas' bananas

KEPERLUAN MINIMA

- The fruit shall be sound, clean, smooth, well-formed, mature green and shall be reasonably free from growth cracks, damage and bruises.
- The fruit shall be free from disease, dead and living insects, fungal contamination and storage disorders.
- The fruit shall be in hands or clusters.
- The fruit in hands or clusters shall show a smooth cut from the stalk.
- The fruit shall be from healthy trees.
- Some markets may not accept hands or clusters with detached fingers and/or loose fingers.



GRED

- Each class shall be graded according to its general appearance, quality and condition.
- There shall be two grades for bananas, grade 1 and grade 2.
- Bananas shall be graded in accordance with the requirements of table.
- Bananas not graded to the minimum grade requirements set in table, shall be categorized as 'Unclassified bananas'

Factor	Tolerance permitted per hand or cluster	
	Grade 1	Grade 2
Blemished fruit, as max. by number	10.0	15.0
Damaged bananas, as % max. by number	Nil	5.0
Off-size fruit, % max. by number	5.0	10.0

SAIZ

The fruits shall be classified according to the length and diameter as shown in table.

Table 1. Size classification

Size	Extra Large		Large		Medium		Small	
	LENGTH	DIAMETER	LENGTH	DIAMETER	LENGTH	DIAMETER	LENGTH	DIAMETER
MEASUREMENT (CM)	More than 11.0	3.0 to 4.0	10.0 to 11.00	3.0 to 4.0	8.5 to 9.9	3.0 to 4.0	8.0 to 8.4	3.0 to 4.0
ACCEPTABLE LEVEL (CM)	10.0 and above.	above 4.00	8.5 to 9.9	above 4.0	8.0 to 8.4	above 4.0	6.0 to 7.9	above 4.0

PITAHAYA/ BUAH NAGA

English: Dragon fruit/ Pitahaya
Nama Botani: *Hylocereus undatus*

Rujukan Standard
MS 2201: 2008 Fresh pitahaya –
Specification



KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the pitahaya shall be:

- whole
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean and free of any visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by mechanical injuries, pests and diseases
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- firm
- fresh in appearance
- free of cracks
- with a peduncle or stem not exceeding 25 mm in length and
- without thorns.



The pitahaya shall have been carefully harvested and have reached an appropriate degree of development and ripeness in accordance with the criteria proper to the variety and to the area in which they are grown.

The development and condition of the pitahaya shall be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.

GRED

Pitahaya is classified in three quality grades as defined in table.

Grade	Requirements	Tolerances
Premium	Pitahaya in this grade shall be of superior quality. They shall be characteristic of the variety and/or commercial type. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.	5% by number or weight of pitahaya not satisfying the requirements of the grade, but meeting those of Grade 1 or, exceptionally, coming within the tolerances of that grade.
1	Pitahaya in this grade shall be of good quality. They shall be characteristic of the variety and/or commercial type. Slight defects in shape and of the skin not exceeding 1 cm ² of the total surface area of the fruit, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, and presentation in the package. The defects shall not, in any case, affect the pulp of the produce.	10% by number or weight of pitahaya not satisfying requirements of the grade, but the meeting those of Grade 2 or, exceptionally, coming within the tolerances of that grade.

2

This grade includes pitahaya which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Clause 4. Defects in shape requirements of the grade nor the and of the skin not exceeding 2 cm² of the total surface area of the fruit, however, may be allowed, provided the pitahaya retain their essential characteristics as regards the quality, the keeping quality and presentation. The defects shall not, in any case, affect the pulp of the produce.

10% by number or weight of pitahaya satisfying neither the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.



PLUM

English: Plum

Nama Botani: *Prunus domestica* L.

Rujukan Standard

UNECE STANDARD FFV-29 (2020) -
PLUMS

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the plums must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of abnormal external moisture
- free of any foreign smell and/or taste

The development and condition of the plums must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.



SAIZ

Size is determined by the weight of fruit, in accordance with table below.

Size code	Unit weight (g)	
	Red flesh	White flesh
XL	> 600	> 450
L	451 - 600	351 – 450
M	301 - 450	251 – 350
S	150 - 300	150 - 250

For all classes, 10% by number or weight of fruit corresponding to the size immediately above and/or below that indicated on the package is allowed.

Plums are classified in three classes, as defined below:

i) "Extra" Class

Plums in this class must be of superior quality. They must be characteristic of the variety. They must be:

- practically covered by their bloom, according to variety
- of firm flesh.

They must be free from defects, with the exception of very slight superficial defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Plums in this class must be of good quality. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in development
- slight defects in colouring
- slight skin defects of elongated shape must not exceed in length one-third of the maximum diameter of the fruit. In particular, healed cracks may be allowed for "Golden gage" varieties
- other slight skin defects of which the total area affected must not exceed one-sixteenth of the whole surface.

iii) Class II ¹

This class includes plums that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The following defects may be allowed, provided the plums retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in development
- defects in colouring
- skin defects of which the total area affected must not exceed one-quarter of the whole surface.

Quality tolerances

i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of plums not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

ii) Class I

A total tolerance of 10 per cent, by number or weight, of plums not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay. Within this tolerance of 10 per cent, not more than 2 per cent in total may consist of split and/or worm eaten fruit.

iii) Class II

A total tolerance of 10 per cent, by number or weight, of plums satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance, not more than 2 per cent in total may consist of produce affected by decay. Within this tolerance of 10 per cent, not more than 4 per cent in total may consist of split and/or worm-eaten fruit.

SAIZ

Size is determined by the maximum diameter of the equatorial section. The minimum sizes shall be as follows:

	Classes "Extra" and I	Class II
Large-fruited varieties 2	35 mm	30 mm
Other varieties	28 mm	25 mm
Mirabelles and Damsons	20 mm	17 mm

To ensure uniformity in size in the "Extra" Class, the range in size between produce in the same package shall not exceed 10 mm.

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of plums not satisfying the requirements as regards sizing is allowed.



PULASAN

English: Pulasan

Nama Botani: *Nephelium mutabile*

Rujukan Standard

FS 042: 2007 SPESIFIKASI PIAWAIAN
DAN GRED PULASAN

KEPERLUAN MINIMA

- Agak bebas daripada kerosakan disebabkan oleh kecederaan mekanikal, perosak dan penyakit
- Tangkai pulasan tidak melebihi 2.5 cm dari pangkal buah.
- Telah mencapai peringkat kematangan yang dikehendaki oleh pasaran.



GRED

Pulasan dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelongsaran (maksimum)
Premium	Pulasan dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah bebas dari kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 3% Kecacatan < 5% Keseragaman saiz < 5%
1	Pulasan dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 5% Segar < 5% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%
2	Pulasan dalam kelas ini mestilah daripada varieti yang sama, segar, bersih dan matang. Mempunyai saiz dan kematangan yang seragam. Ia juga mestilah agak bebas dari kecacatan atau kerosakan.	Kematangan < 10% Segar < 10% Rosak < 5% Kecacatan < 10% Keseragaman saiz < 10%

SAIZ

Bagi Pulasan, saiz ditentukan oleh berat dalam unit gram (gm) sepertimana jadual:

Saiz	Kod	Berat (gm)
BESAR	L	> 75
SEDANG	M	51 – 75
KECIL	S	40 – 50



RAMBAI

English: Rambai

Nama Botani: *Baccaurea motleyana*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3%. Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5%. Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



RAMBUTAN

English: Rambutan

Nama Botani: *Nephelium lappaceum*
L.

Rujukan Standard

MS 1995: 2007 Fresh rambutan -
Specification

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the rambutans shall be:

- whole
- fresh in appearance
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests
- practically free of damage caused by pests
- free of damage caused by low and/or high temperature
- practically free of mechanical damage
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign smell and/or taste.
- Only ripe fruit shall be carefully harvested in accordance with criteria proper to the variety and to the area in which they are grown.

The development and condition of the rambutans shall be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.



GRED

Rambutans are classified in three quality classes defined in table.

Grade	Requirements	Tolerances
Premium	Rambutans in this class shall be of superior quality. They shall be characteristic of the variety. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.	5% by number or weight of rambutans not satisfying the requirements of the class, but meeting those of Class 1 or, exceptionally, coming within the tolerances of that class.
1	Rambutans in this class shall be of good quality. They shall be characteristic of the variety. Slight defect in shape and slight skin defects not exceeding 5 % of the total surface area, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, keeping quality and presentation in the package. The defects shall not, in any case, affect the flesh of the produce.	10% by number or weight of rambutans not satisfying the requirements of the class, but meeting those of Class 2 or, exceptionally, coming within the tolerances of that class.

2

This class includes rambutans which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in 4.1. Defect in shape and skin defects not exceeding 10 % of the total surface area, however, may be allowed, provided the rambutans retain their essential characteristics as regards the quality, the keeping quality and presentation. The defects shall not, in any case, affect the flesh of the produce.

10% by number or weight of rambutans satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size code is determined by weight per fruit in gram or number of fruits per kilogramme, as follows.

Size code	Weight per fruit (g)	Number of fruits per kg
1	> 45	< 22
2	36 – 45	22 – 27
3	26 – 35	28 – 38
4	20 – 25	39 – 50



ROCK MELON

English: Rock melon

Nama Botani: *Cucumis melo* L.

Rujukan Standard

MS 1325: 2012 Fresh muskmelon -
Specification (First Revision)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and tolerances allowed, the fruit shall be:

- whole, fresh, clean, mature or ripe but not over-ripe
- practically free from damages caused by mechanical and chilling injuries, pests and diseases
- free of abnormal external moisture excluding condensation following withdrawal from cold storage
- free of foreign odour and/or taste and
- fairly well-formed and not badly misshapen.

When a peduncle is present, it shall be well trimmed with a length not longer than 5 cm.

The development and condition of the fruit must be such as to enable them to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.



GRED

The fruit is classified into three quality grades as in table.

Grade	Requirements	Tolerances
Premium	The fruit shall be of superior quality with characteristics of the variety. They shall be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	5% of the number or weight of fruit in the lot not satisfying the requirements of Premium Grade, but meeting those of Grade 1.
1	The fruit shall be of good quality with characteristics of the variety. They shall be slightly free from defects, with the exception of slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	10% of the number or weight of fruit in the lot not satisfying the requirements of Grade 1, but meeting those of Grade 2.
2	This grade includes fruit which do not qualify for inclusion in the Grade 1, but satisfy the minimum requirements specified in 4.1. Slight superficial defects may be allowed provided these do not affect the flesh of the fruit.	10% of the number or weight of fruit in the lot satisfying neither the requirements of Grade 2 nor the minimum requirements, with the exception of fruit affected by rotting, or any other deterioration rendering it unfit for consumption.

SAIZ

Provision concerning size codes are specified as in table.

Size code	Weight per fruit (kg)
A	> 3.0
B	> 2.5 – 3.0
C	> 2.0 – 2.5
D	> 1.5 – 2.0
E	> 1.0 – 1.5
F	0.5 – 1.0

For all size classifications, the size tolerance is 10% by number or weight of fruit not conforming to the size immediately above or below the size range specified.



STRAWBERI

English: Strawberry

Nama Botani: *Fragaria × ananassa*
(Duchesne ex Weston) Duchesne ex
Rozier

Rujukan Standard

ASEAN Stan 65: 2020 ASEAN
Standard for Strawberry

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the strawberry shall be:

- intact, with calyx
- firm
- fresh in appearance
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests ¹
- practically free of damage caused by pests affecting the general appearance of the produce
- free of mechanical and/or physiological damage such as low and /or high temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign odour and/or taste.

The development and condition of the strawberry should be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination



GREED

Strawberry is classified into three classes defined below:

i) Extra class

Strawberry in this class shall be of superior quality and with characteristics of the variety. They shall be well-formed and free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, quality, keeping quality and presentation in the package.

ii) Class I

Strawberry in this class shall be of good quality and with characteristics of the variety. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, quality, keeping quality and presentation in the package:

- slight defects in shape
- presence of a small white patch, not exceeding 10% of the total surface area of the fruit and
- slight pressure marks.

iii) Class II

This class includes strawberries that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified in Section 2.1 above.

The following defects may be allowed, provided the strawberries retain their essential characteristics with regards to quality, keeping quality and presentation:

- defects in shape
- white patch, not exceeding 20% of the total surface area of the fruit and
- slight dry bruising not likely to spread.

Quality Tolerances

i) Extra class

Five percent by number or weight of strawberries not satisfying the requirements of the class but meeting those of Class I is allowed.

ii) Class I

Ten percent by number or weight of strawberries not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 2 % in total (by number or weight) may consist of produce not satisfying the minimum requirements, or of produce affected by decay.

iii) Class II

Ten percent by number or weight of strawberries satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 % total (by number or weight) in total may consist of produce affected by decay.

SAIZ

Size is determined by individual fruit weight in accordance with table:

Size code	Weight per fruit (g)
1	> 30
2	> 20 – 30
3	10 – 20
4	< 10

For all classes, 10% by number or weight of strawberries not satisfying the requirements as regards sizing but falling within the size immediately above or below those indicated in Section 3.



SALAK

English: Snakeskin fruit/ Salacca

Nama Botani: *Salacca edulis* Reinw.

[syn. *S. zalacca*, *S. glaberescens* Griff. and *S. ramosiana*]

Rujukan Standard

ASEAN Stan 19: 2010 ASEAN
Standard for Salacca

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the salacca fruit must be:

- whole
- show characteristics of the variety
- firm
- free of rotting or deterioration which may make it unfit for human consumption
- clean
- practically free of any visible foreign matter
- practically free of mechanical and/or physiological damage
- practically free of pests and damage caused by them affecting the general appearance of the produce
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign smell and/or taste.



The salacca must be harvested and have reached an appropriate degree of ripeness, in accordance with the characteristics of the variety and/or commercial type and to the area in which they are grown.

The development and condition of the salacca must be such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination

GED

Salaccas are classified in three classes defined below:

i) "Extra" Class

Salacca in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Salacca in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slightly irregular in shape
- slight deviation from the normal color
- slight skin damage. The total area affected shall not exceed 5% of the total surface area.
- The defects must not, in any case, affect the flesh of the fruit.

iii) Class II

This class includes salacca which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following may be allowed, provided the salacca retain their essential characteristics as regards the quality, the keeping quality and presentation:

- irregular in shape
- slight deviation from the normal color
- skin damage. The total area affected shall not exceed 10% of the total surface area.
- The defects must not, in any case, affect the flesh of the fruits.

Quality Tolerances

i) "Extra" Class

Five percent by number or weight of salaccas not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of salaccas not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of salaccas satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the individual fruit or bunch, in accordance with the following table:

Size code	Weight per fruit (g)
1	> 100
2	76 – 100
3	51 – 75
4	25 - 40
5	< 25

For all classes, 10% by number or weight for individual fruit corresponding to the size immediately above and/or below that indicated on the package.



SUKUN

English: Breadfruit

Nama Botani: *Artocarpus altilis*

Rujukan Standard

FS 089: 2016 - STANDARD UMUM BUAH
DAN SAYUR SEGAR

KEPERLUAN MINIMA

- Hendaklah segar, bersih, agak bebas daripada rosak dan kecacatan.
- Hendaklah mencapai peringkat pembentukan yang sempurna mengikut ciri-ciri varieti dan kawasan di mana ianya ditanam.
- Hendaklah mempunyai varieti yang sama.
- Hendaklah mematuhi Peraturan-Peraturan Lembaga Pemasaran Pertanian Persekutuan (Penggredan, Pembungkusan dan Pelabelan Keluaran Pertanian) 2008 di bawah Akta Lembaga Pemasaran Pertanian Persekutuan 1965 [Akta 141].



GRED

Buah dan sayur segar dikelaskan kepada 3 gred, bergantung kepada spesifikasi seperti jadual :

Gred	Spesifikasi	Kelonggaran
Premium	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 3% Maksimum 5% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 1.
1	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah agak bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5% Maksimum 10% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan Gred 2.
2	Ia hendaklah daripada varieti yang sama, segar dan bersih. Ia juga hendaklah hampir bebas daripada rosak dan/atau kecacatan. Mempunyai kematangan dan saiz yang seragam.	Rosak hendaklah tidak melebihi 5% Tidak segar hendaklah tidak melebihi 10% Maksimum 15% daripada segi bilangan atau berat hasilan yang dibenarkan di dalam setiap konsainan. Buah dan sayur segar dalam gred ini hendaklah menepati keperluan minimum.

SAIZ

Saiz ditentukan berdasarkan amalan pasaran semasa kepada salah satu atau lebih kriteria berikut:

- Ukuran berat
- Ukuran panjang
- Ukuran diameter



TEMBIKAI

English: Watermelon

Nama Botani: *Citrullus lanatus*

Rujukan Standard

MS 1028: 2005 (CONFIRMED:2012)

Fresh watermelon - Specification (First revision)

KEPERLUAN MINIMA

The fruit shall be:

- whole, firm, fresh, clean and mature but not over ripe
- practically free of visible foreign materials
- free from damages caused by mechanical and chilling injuries, pests and diseases and
- free of abnormal external moisture excluding condensation following withdrawal from cold storage, and foreign odour and/or taste.
- When a peduncle is present, the length shall not be longer than 5 cm and the cut shall be clean.
- The fruit shall comply with those maximum residue limits as specified in the Malaysian Food Act 1983 and the Malaysian Food Regulations 1985.



GRED

The fruit shall be graded into Premium, Grade 1 and Grade 2 according to their appearance, quality and conditions as shown in table.

Grade	Requirement	Quality tolerance
Premium	The fruit shall be of similar varietal characteristics, well formed, and free from blemishes.	10% by number or weight of watermelon not satisfying the requirements of Premium Grade, but meeting those of Grade 1 or, exceptionally, coming within the tolerances of that grade.
1	The fruit shall be of similar varietal characteristics, fairly well formed, and fairly free from blemishes.	10% by number or weight of watermelon not satisfying the requirements of Grade 1, but meeting those of Grade 2 or, exceptionally, coming within the tolerances of that grade.
2	The fruit shall be of similar varietal characteristics, and reasonably free from blemishes. Fruits that are slightly misshapen, or with slight bruising or with superficial defects are allowed.	10% by number or weight of watermelon satisfying neither the requirements of the grade nor the minimum requirements, with the exception of produce affected by rotting, or any other deterioration rendering it unfit for consumption.

SAIZ

Watermelon shall be classified according to the size classification as given in table.

Size	Weight (kg)
EXTRA LARGE	7.6 to 9.0
LARGE	6.1 to 7.5
MEDIUM	4.6 to 6.0
SMALL	3.0 to 4.5

For all classes, 10 % by number or weight of watermelon not confirming to the size indicated, but no more than 1 kg above or below the size range specified shall be used as size tolerance.



TEMBIKAI WANGI

English: Musk melon

Nama Botani: *Cucumis melo* L.

Rujukan Standard

MS 1325: 2012 Fresh muskmelon -
Specification (First Revision)

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and tolerances allowed, the fruit shall be:

- whole, fresh, clean, mature or ripe but not over-ripe
- practically free from damages caused by mechanical and chilling injuries, pests and diseases
- free of abnormal external moisture excluding condensation following withdrawal from cold storage
- free of foreign odour and/or taste and
- fairly well-formed and not badly misshapen.

When a peduncle is present, it shall be well trimmed with a length not longer than 5 cm.

The development and condition of the fruit must be such as to enable them to:

- withstand transport and handling and
- arrive in satisfactory condition at the place of destination.



GED

The fruit is classified into three quality grades as in table

Grade	Requirement	Tolerance
Premium	The fruit shall be of superior quality with characteristics of the variety. They shall be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	5% of the number or weight of fruit in the lot not satisfying the requirements of Premium Grade, but meeting those of Grade 1.
1	The fruit shall be of good quality with characteristics of the variety. They shall be slightly free from defects, with the exception of slight superficial defects, provided these do not affect the general appearance of the fruit, the internal quality, the keeping quality and presentation in the package.	10% of the number or weight of fruit in the lot not satisfying the requirements of Grade 1, but meeting those of Grade 2.
2	This grade includes fruit which do not qualify for inclusion in the Grade 1, but satisfy the minimum requirements specified in 4.1. Slight superficial defects may be allowed provided these do not affect the flesh of the fruit.	10% of the number or weight of fruit in the lot satisfying neither the requirements of Grade 2 nor the minimum requirements, with the exception of fruit affected by rotting, or any other deterioration rendering it unfit for consumption.

SAIZ

Provision concerning size codes are specified as in table.

Size	Weight per fruit (kg)
A	> 3.0
B	> 2.5 – 3.0
C	> 2.0 – 2.5
D	> 1.5 – 2.0
E	> 1.0 – 1.5
F	0.5 – 1.0

For all size classifications, the size tolerance is 10 % by number or weight of fruit not conforming to the size immediately above or below the size range specified.



BUNGA



KEKWA (MULTI-FLORA)

English: Chrysanthemum (multi-floral)

Nama Botani: *Chrysanthemum morifolium*

Rujukan Standard

MS 1354: 2012 Fresh cut chrysanthemum - Specification (First revision)

KEPERLUAN MINIMA

- The stem of multi-flowers can have signs of disbudding or removal of side shoot, secondary buds and leaves, which are operations carried out during cultivation or after harvesting in order to improve the quality of the product.
- The stem of a single-flower can have removal signs of side shoot and leaves which are operations carried out during cultivation or after harvesting in order to improve the quality of the product.
- The flowers shall have been carefully harvested, shall have reached an appropriate stage of development and may have been treated with acceptable floral preservatives which would allow buds to open properly and flowers to retain their freshness.
- The flowers shall be whole, fresh, at the appropriate stage of development, normally formed and free from pests.
- Side shoots are allowed to a maximum length of one-third of the stem length.
- The development and condition of the flowers shall be such as to enable them to withstand handling and transport, ensuring that they arrive in satisfactory condition at the place of destination.



GRED

The flowers shall be classified into three grades according to their general appearance and physical characteristics, as shown in table.

Grade	Requirements	Tolerances
Premium	The flowers shall be of superior quality, fresh, clean and free from damages and defects of development. Stems shall be well-formed, straight, rigid and strong enough to support the flowers with normal green leaves, which can be missing on one-third of the lower part of the stem. Multi-flower stems shall bear not less than five flowers which have reached a stage of development such as to show their colour. The lateral flowers shall be very uniformly distributed around the central stem.	Damage < 3% Defect < 3% 3% of the cut flowers, by number, may have slight defects but must conform to the requirements of grade I; on condition that the uniformity of the flowers in a unit of presentation is not affected.
1	The flowers shall be of good quality, fresh, clean and practically free from damages and defects of development. Stems shall be well-formed, sufficiently straight, rigid and strong enough to support the flowers with normal green leaves, which can be missing on one-third of the lower part of the stem. Multi-flower stems shall bear not less than four flowers which have reached a stage of development such as to show their colour. The lateral flowers shall be uniformly distributed around the central stem.	Damage < 5% Defect < 5% 5% of the cut flowers, by number, may have slight defects but must conform to the requirements of grade II, on condition that the uniformity of the flowers in a unit of presentation is not affected.

2

The flowers satisfy the specified minimum requirements. The damages and defects permitted shall not impair the keeping quality, appearance or utility of the flowers. The flowers and parts of the flower may have the following slight damages and defects. Stems may be less rigid and less strong and provided with normal green leaves, which can be missing on one-third of the length of the lower part of the stem. Multi-flower stems shall bear not less than three flowers which have reached a stage of development such as to show their colour. The lateral flowers shall be uniformly distributed around the central stem.

Damage < 10%

Defect < 10%

10% of the cut flowers, by number, may vary from the requirements of this grade.

The damages and defects in question must not impair the utility of the flowers.

SAIZ

For cut chrysanthemums, sizing shall comply with the following scale:

Size code	Length (cm)
1	20 – 30
2	> 30 – 40
3	> 40 – 50
4	> 50 – 60
5	> 60 – 70
6	> 70 – 80
7	> 80 – 90
8	> 90 – 100
9	Over 100

These lengths are measured from the base of the stem to the top of the flower head.

The difference between the maximum and minimum lengths of the chrysanthemums in each unit of presentation (box and the like) may not exceed:

- 5 cm for flower stems in size codes 1 to 3 (inclusive) and
- 10 cm for flower stems in size codes 4 and above.

ORKID

English: Orchid

Nama Botani: *Orchis* Tourn. ex L.

Rujukan Standard

MS 1280: 2015 Fresh cut orchid -
Specification (First revision)



KEPERLUAN MINIMA

- The Orchid must have reached an appropriate stage of development.
- The Orchid shall be fresh, normally formed and free of visible parasites of animal or plant origin.
- The condition of the Orchid shall be such as to enable it to withstand normal handling and transport till it arrives in satisfactory condition at the place of destination.



GREED

The quality of the Orchid shall be classified into three classes according to their general appearance and physical characteristics as follow:

i) Extra class

The Orchid in this class shall be of superior quality. They must have the characteristics of the genus and of the variety (cultivar). All parts of the flowers shall be:

- free from damage caused by parasites of animal or plant origin
- free of visible extraneous matter affecting the appearance
- free of bruising
- free of defects of development.

The stem shall be rigid and strong so as to support the flowers and buds (if any).

ii) Class I

The Orchid in this class shall be of good quality. They must have the characteristics of the genus and of the variety (cultivar). All parts of the flowers shall be:

- practically free from damage caused by parasites of animal or plant origin
- practically free of visible extraneous matter affecting the appearance
- practically free of bruising of flowers and
- practically free of defects of development.

The stem shall be rigid and strong enough to support the flowers and buds (if any).

iii) Class II

This class comprises of the Orchid which satisfy the minimum requirement specified. The defects permitted must not impair the keeping quality and appearance of the flowers. The flowers or parts of flower may have the following defects:

- slight damage caused by disease, parasites, treatment products, etc.
- slight visible extraneous matter
- slight bruising or deterioration and
- slight malformation that does not prevent them from opening.

The stem may be less rigid and less strong.

SAIZ

The length shall be measured from the base of the main stem to the tip of terminal flower/bud. The codes for the length shall be as follows:

Code	Length
10	10 - 20cm
20	20 - 30cm
30	30 - 40cm
40	40 - 50cm
50	50 - 60cm
60	60 - 70cm
70	70 - 80cm
80	80 - 90cm
90	90 - 100cm
100	100 - 120 cm
120	120 - 140 cm
140	more than 140

The difference in the maximum and minimum length of the Orchid in a Unit Presentation shall be as follows:

Lenght code	Length difference (cm)
10 to 90	5
90 to 140	10



ROS (UNIFLORA)

English: Rose (uni-floral)

Nama Botani: *Rosa* L.

Rujukan Standard

MS 1233: 1991 Specification for fresh cut roses (Unifloral)

KEPERLUAN MINIMA

- The roses must be carefully harvested and had reached an appropriate stage of growth and be treated with suitable floral preservatives which allow them to open properly.
- The roses must be whole, fresh, normally formed, free of animal parasites and free of obviously chlorotic leaves.
- The stem must be free of wood remaining from a previous year's growth.
- The development and condition of the flower must be such as to enable it to withstand transport and handling ensuring that it arrives in satisfactory condition at this place of destination.



GREED

Cut roses shall be classified into two classes according to their general appearance and physical characteristics as follows:

i) Class I

the roses in this class must be of superior quality. They must have the characteristics of the species and of the variety (cultivar). All parts of the flowers must be:

- free from damage caused by parasites of animal or plant origin
- free of visible extraneous matter affecting the appearance
- free of bruising
- free of defects of development

Stems must be rigid, strong and up right with healthy leaves.

ii) Class II

The roses in this class must be of good quality. They must have the characteristics of the species and of the variety (cultivar). All parts of the flowers must be:

- practically free from damage caused by parasites of animal or plant origin
- practically free of visible extraneous matter affecting the appearance
- practically free of bruising
- practically free of defects of development.

Stems must be rigid, practically straight and sufficiently strong and single, with healthy leaves.

SAIZ

For cut roses, sizing must comply at least with the following scale:

Code	Length
30	30 - 40 cm
40	40 - 50 cm
50	50 - 60 cm
60	60 - 80 cm

The difference between the maximum and minimum lengths of the roses in each unit of presentation (bunch, box and the like) may not exceed 5 cm.



ROS (MULTIFLORA)

English: Rose (multi-floral)

Nama Botani: *Rosa* L.

Rujukan Standard

MS 1355: 1994 Specification for fresh cut roses (Multi-floral)

KEPERLUAN MINIMA

- The roses must have been carefully harvested, must have reached an appropriate stage of growth and preferably have been treated with acceptable floral preservatives which would allow them to open properly and retain their freshness.
- The roses shall be whole, fresh, normally formed and free from pests and diseases.
- Side shoots (axillary growth) are allowed to a maximum length of one-third of the stem length.
- The development and condition of the flowers shall be such as to enable them to withstand handling and transport, ensuring that they arrive in satisfactory condition at the place of destination.



GREED

The flowers shall be classified into three classes according to their general appearance and physical characteristics as follows:

i) Extra class

The flowers in this class shall be of superior quality. They must have the characteristics of the species and of the cultivar. All parts of the flowers shall be:

- free from damage caused by parasites of animal or plant origin
- free of visible extraneous matter affecting appearance
- free of bruising
- free of defects in growth and formation

Stems shall be well-formed and developed, straight, rigid and strong to support the flowers; provided with leaves normally developed, fresh and which can be missing on one-third of the length of the lower part of the stem. The lateral flowers shall be very uniformly distributed around the central stem. In addition, there shall be a minimum number of five flower buds per stem.

ii) Class I

The roses in this class must be of good quality. They must have the characteristics of the species and of the cultivar. All parts of the flowers must be:

- practically free from damage caused by parasites of animal or plant origin
- practically free of visible extraneous matter affecting appearance
- practically free of bruising
- practically free of defects of development

Stems shall be well-formed and developed; sufficiently straight, rigid and strong to support the flowers; provided with leaves normally developed, fresh and which can be missing on one-third of the length of the lower part of the stem. The lateral flowers shall be uniformly distributed around the central stem. In addition, there shall be a minimum number of four flower buds per stem.

iii) Class II

This class comprises cut multi-floral roses which do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The defects permitted must not impair the keeping quality, appearance or utility of the flowers. All parts of the flowers may have the following defects:

- slight defects caused by parasites of animal or plant origin
- slight visible extraneous matter
- slight bruising
- slight malformation that does not prevent it from opening

Stems may be less rigid and less strong and provided with leaves normally developed, fresh and which can be missing on one-third of the length of the lower part of the stem. In addition, there shall be a minimum of three flower buds per stem.

SAIZ

For cut multi-floral roses, sizing must comply with the following scale:

Code	Length
10	10 - 20cm
20	> 20 - 30cm
30	> 30 - 40cm
40	> 40 - 50cm
50	> 50 - 60cm
60	> 60 - 70cm
70	over 70 cm

These lengths are measured from the base of the stem to the top of the flower head.

The difference between the maximum and minimum lengths of the roses in each unit of presentation (bunch, box and the like) may not exceed:

2.5 cm for codes 20 and below

5.0 cm for codes 30 - 60 and

10.0 cm for codes 80 and above.



TELUKI (UNIFLORA)

English: Carnation (uniflora)

Nama Botani: *Dianthus caryophyllus* L.

Rujukan Standard

MS 1281: 1992 Specification for fresh cut carnations (Uniflora)

KEPERLUAN MINIMA

- The carnations must have been carefully harvested and to have reached an appropriate stage of growth and to be treated with suitable floral preservatives.
- The carnations shall be whole, fresh, and free of visible presence of parasites of animal or plants origin. The calyx must not be broken or split.
- The development and condition of the flower shall be such as to enable it to withstand transport and handling ensuring that it arrives in satisfactory condition at the place of destination.



GREED

Cut carnations shall be classified into three classes according to their general appearance and physical characteristics as follows:

i) Extra class

The cut unifloral carnations in this class shall be of superior quality. They must have the characteristics of the species and of the variety (cultivar). All parts of the flowers shall be:

- free from damage caused by parasites of animal or plant origin
- free of visible extraneous matter affecting the appearance
- free of bruising of flowers
- free of defects in growth and formation

Stems shall be, according to species and variety, rigid, up right and strong so as to support the flower, be free of axillary growth and provided with healthy leaves.

ii) Class I

The carnations in this class shall be of good quality. They must have the characteristics of the species and of the variety (cultivar). All parts of the flowers shall be:

- practically free from damage caused by parasites of animal or plant origin
- practically free of visible extraneous matter affecting the appearance
- practically free of bruising of flowers
- practically free of defects of development

Stems shall be, according to species and variety, rigid and strong enough to support the flower, be free of axillary growth and provided with healthy leaves.

iii) Class II

This class comprises cut carnations which do not qualify for inclusion in the higher classes but satisfy the minimum requirement specified above. The flowers may have the following defects:

- slight defects caused by disease parasites and treatment products
- slight visible extraneous matter affecting the appearance
- slight bruising of flowers
- slight malformation of flowers.

Stems may be less rigid and less strong and provided with leaves. The defects permitted must not impair the keeping quality, appearance or utility of the products.

SAIZ

For cut carnations, sizing must comply at least with the following scale:

Code	Length (cm)
5	5 - 10cm
10	10 - 15cm
15	15 - 20cm
20	20 - 30cm
30	30 - 40cm
40	40 - 50cm
50	50 - 60cm
60	60 - 70cm
70	70 - 80cm
80	80 - 100 cm
100	more than 100 cm

The lengths include the flower head.

The difference between the maximum and minimum lengths of the carnations in each unit of presentation (bunch, box and the like) may not exceed.

2.5 cm for flowers in codes 15 and below

5.0 cm for flowers in codes 20 (inclusive) to 80 (inclusive)

10.0 cm for flowers in codes 80 and above.



TELUKI (MULTIFLORA)

English: Carnation (multi-floral)

Nama Botani: *Dianthus caryophyllus* L.

Rujukan Standard

MS 1353: 1994 Specification for fresh cut carnations (Multi-floral)

KEPERLUAN MINIMA

- The carnations must have been carefully harvested, must have reached an appropriate stage of growth and have been treated with acceptable floral preservatives which would allow them to open properly.
- The carnations shall be whole, fresh, and free from pests and diseases.
- Side shoots (axillary growth) are allowed to a maximum length of one-third of the stem length.
- The development and condition of the flowers shall be such as to enable them to withstand handling and transport, ensuring that they arrive in satisfactory condition at the place of destination.



GRED

Cut carnations shall be classified into three classes according to their general appearance and physical characteristics.

i) Extra class

The carnations in this class shall be of superior quality. They must have the characteristics of the species and of the cultivar. All parts of the flowers shall be:

- free from damage caused by parasites of animal or plant origin
- free of visible extraneous matter affecting appearance
- free of bruising
- free of defects in growth and formation

Stems shall be well-formed and developed, straight, rigid and strong enough to support the flowers; provided with green leaves normally developed, which can be missing on one-third of the length of the lower part of the stem. The lateral flowers shall be very uniformly distributed around the central stem. In addition, there shall be a minimum number of five flower buds per stem.

ii) Class I

The carnations in this class shall be of good quality. They must have the characteristics of the species and of the cultivar. All parts of the flowers shall be:

- practically free from damage caused by parasites of animal or plant origin
- practically free of visible extraneous matter affecting appearance
- practically free of bruising
- practically free of defects of development

Stems shall be well-formed and developed; sufficiently straight, rigid and strong to support the flowers; provided with green leaves normally developed, which can be missing on one-third of the length of the lower part of the stem. The lateral flowers shall be uniformly distributed around the central stem. In addition, there shall be a minimum number of four flower buds per stem.

iii) Class II

This class comprises cut multi-floral carnations which do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above. The defects permitted must not impair the keeping quality, appearance or utility of the flowers.

All parts of the flowers may have the following defects:

- slight defects caused by parasites of animal or plant origin
- slight visible extraneous matter
- slight bruising
- slight malformation that does not prevent it from opening

Stems may be less rigid and less strong and provided with green leaves normally developed, which can be missing on one-third of the length of the lower part of the stem. In addition, there shall be a minimum of three flower buds per stem.

SAIZ

For cut multi-floral carnations, sizing must comply with the following scale:

Code	Length
30	30 - 40cm
40	> 40 - 50cm
50	> 50 - 60cm
60	> 60 - 70cm
70	Over 70 cm

The minimum stem length for all classes shall be 30 cm.

The difference between the maximum and minimum lengths of the carnations in each unit of presentation (bunch, box and the like) may not exceed:

5 cm, for code 30 - 60 and
10 cm, for code 70.



KACANG



KACANG TANAH

English: Groundnut

Nama Botani: *Arachis hypogaea* L.

Rujukan Standard

MS 1875: 2018 Groundnuts (*Arachis Hypogaea* L.) - Specification (First revision)

KEPERLUAN MINIMA

- Production of groundnuts shall comply with Good Agricultural Practice (GAP) as prescribed in MS 1784 or equivalent.
- The groundnuts shall be harvested and have reached an appropriate degree of maturity, in accordance with the variety, season and the area in which they are grown.
- The moisture content requirement of groundnuts shall be as in table. Determination of moisture content should be in accordance with ISO 1026 or any equivalent test method.

Moisture content requirement of groundnuts

Type	Moisture level (%)
Groundnuts in-pot	≤ 10
Kernels	≤ 9



The groundnuts shall be:

- intact
- in accordance with varietal characteristics
- clean, practically free of any visible extraneous matter as indicated in Table
- practically free of any visible damage and/or defects (refer Table) and
- free of any objectionable dour and/or taste

The presence of discolored pod shall not be more than 2%.

Groundnuts kernel rancidity requirement shall be less than 2% w/w. Parameters and methods of testing for kernel rancidity is specified in Table Table4.

- Aflatoxins shall not exceed the maximum limit as specified under the Food Regulations 1985. Determination of aflatoxins content shall be in accordance with CODEX Stan 234-1999 or any equivalent method.
- Pesticide residue and heavy metals shall not exceed the maximum limits as specified under the Food Regulations 1985.
- Handling of the groundnuts shall comply with the requirements of Food Hygiene Regulations 2009 and other relevant public health legislation currently enforced in the country.
- Marketing of groundnuts shall comply with the Federal Agricultural Marketing Authority Act 1965 (Act 141) and Federal Agricultural Marketing Authority (Grading, Packaging and Labelling of Agricultural Produce) Regulations 2008.

Maximum impurities allowance of groundnuts

Impurities	In-pod (%-w/w)	Kernel (%-w/w)
Filth	0.1	0.1
Extraneous matter	0.5	0.5

GRED

Quality factors (100%)	Grade		
	Premium	1	2
Damage and defects of groundnuts in-pod			
a) Damaged pod	≤ 3.5 %	≤ 5 %	≤ 10 %
b) Empty pod	≤ 3 %	≤ 4 %	≤ 5 %
Damage and defects of kernels			
a) Broken and split kernels	≤ 3 %	≤ 5 %	≤ 10 %
b) Damaged by pests	0	≤ 1 %	≤ 2 %
c) Germinated kernels	0	≤ 1 %	≤ 2 %
d) Mechanical damage	≤ 0.5 %	≤ 1 %	≤ 2 %
e) Shriveled kernels	≤ 2 %	≤ 3 %	≤ 5 %
f) Discolouration			
i) Cotyledon (flesh) discolouration	0	≤ 2 %	≤ 3 %
ii) Seed coat (skin) discolouration	≤ 3 %	≤ 5 %	≤ 10 %
g) Mouldy kernels	≤ 0.2 %	≤ 1 %	≤ 2 %
h) Decayed kernels	≤ 0.2 %	≤ 1 %	≤ 2 %
i) Rancid kernels (base on chemical analysis)	≤ 0.2 %	≤ 1 %	≤ 2 %

SAIZ

Groundnut kernel size code shall be determined either by kernel diameter or kernel counts as in tables below.

Groundnut kernel size determination based on kernel diameter

Size code	1	2	3	4	5
Diameter (mm)	> 8	> 7 to 8	> 6 to 7	≥ 5 to 6	< 5

Groundnut kernel size determination based on kernel counts

Size code	1	2	3	4	5
Count (in 100 grams)	< 20	> 20 to 50	> 50 to 150	≥ 150 to 200	> 200

Size for groundnut in-pod shall be determined based on Table table7.

Groundnuts in-pod size determination

Size	Code		Lenght (mm)
SMALL	S	1	< 25
MEDIUM	M	2	25 to 35
LARGE	L	3	> 35



KELAPA

KELAPA

English: Coconut

Nama Botani: *Cocos nucifera* L.

Rujukan Standard

ASEAN Stan 56: 2018 ASEAN Standard for
Mature Coconut



KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the mature coconut must be:

- whole
- untrimmed (with husk) or trimmed (semi-dehusked mature coconut, dehusked mature coconut except for the perianth area, fully dehusked)
- brown or green colour² depending on the characteristic of the variety
- free of germination
- free of cracks on the shell
- practically free of pests and damage caused by them affecting the general appearance and the meat quality
- sound produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded
- clean, practically free of any visible foreign matter
- free of abnormal external moisture, excluding condensation following removal from cold storage and
- free of any foreign odour and/or taste.



Mature coconut should be harvested and have reached an appropriate degree of development for harvesting depending on variety, season and area in which they are grown.

The development and condition of the mature coconut should be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.

GRED

Mature coconut is classified into three classes defined below:

i) "Extra" Class

Mature coconuts in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It must be free of defects with the exception of very slight superficial defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Mature coconuts in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects of colour
- slight defect in shape
- slight defects on the skin/husks/shell due to mechanical damage and blemishes not exceeding 5% of the total surface area

The defects must not, in any case, affect the meat and water of the fruit.

iii) Class II

This class includes mature coconuts which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following, however, may be allowed, provided the mature coconuts retain their essential characteristics as regards to the quality, the keeping quality and presentation in the package:

- defects in shape and colour
- defects on the skin/husks/shell due to mechanical damage and blemishes not exceeding 10% of the total surface area

The defects must not, in any case, affect the meat and water of the fruit.

Quality Tolerances

i) "Extra" Class

Five percent by number or weight of mature coconut not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of mature coconut satisfying the requirements of the class, but meeting those of Class II or exceptionally, coming within tolerances of that class.

iii) Class II

Ten percent by number or weight of mature coconut satisfying neither the requirements of the class, nor the minimum requirements with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size code is determined by weight of the fruit in accordance with the following table:

Classification of untrimmed mature coconut based on weight

Size code	Weight (g)
1	> 2.0
2	> 1.5 – 2.0
3	> 1.0 – 1.5
4	0.5 – 1.0

Classification of trimmed mature coconut based on weight

Size code	Weight (g)
1	> 1.2
2	> 0.8 – 1.2
3	1.3 – 0.8

For all classes, 10% by number or weight of mature coconut not satisfying the requirements as regards sizing, but falling within the size immediately above or below those indicated in Section 3.



KELAPA MUDA

English: Young coconut

Nama Botani: *Cocos nucifera* L.

Rujukan Standard

ASEAN Stan 15: 2009ASEAN
Standard for Young

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the young coconut must be:

- whole, trimmed, or polished
- free of cracks at the shell
- fresh in appearance
- sound; produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded
- clean, practically free of any visible foreign matter
- practically free of pests affecting the general appearance of the produce
- practically free of damage caused by pests
- free of abnormal external moisture, excluding condensation following removal from cold storage
- free of any foreign smell and/or taste
- for the whole fruit, spikelet and peduncle should be absent and the calyx should be intact

The development and condition of the young coconut must be such as to enable them:

- to withstand transport and handling and
- to arrive in satisfactory condition at the place of destination.



GED

Young coconuts are classified in three classes defined below:

i) “Extra” Class

Young coconuts in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. It must be practically free of defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

ii) Class I

Young coconuts in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects of colour and shape
- slight defects on the skin/husks/shell due to mechanical damage and blemishes not exceeding 5% of the total surface area.

The defects must not, in any case, affect the flesh and water of the fruit.

iii) Class II

This class includes young coconuts which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following, however, may be allowed, provided the young coconuts retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and colour
- defects on the skin/husks/shell due to mechanical damage and blemishes not exceeding 10% of the total surface area

The defects must not, in any case, affect the flesh and water of the fruit

Quality Tolerances

i) “Extra” Class

Five percent by number or weight of young coconuts not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

ii) Class I

Ten percent by number or weight of young coconuts not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

iii) Class II

Ten percent by number or weight of young coconuts satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

SAIZ

Size is determined by the weight of the fruit, in accordance with the following table

Whole fruit

Size code	Weight (grams)
1	> 2400
2	1901 – 2400
3	1401 – 1900
4	901 – 1400
5	400 - 900

Trimmed fruit

Size code	Weight (grams)
1	> 1500
2	1201 – 1500
3	901 – 1200
4	601 – 900
5	300 - 600

Polished fruit

Size code	Weight (grams)
1	> 600
2	451 – 600
3	300 – 450

For all classes, 10% by number or weight of young coconuts corresponding to the size immediately above or below that indicated on the package.



KOPI



BIJI KOPI

English: Coffee bean

Nama Botani: *Coffea* sp.

Rujukan Standard

ASEAN Stan 31: 2013 ASEAN
Standard for Coffee Beans

KEPERLUAN MINIMA

In all classes, subject to the special provisions for each class and the tolerances allowed, the dried green coffee bean must be:

- whole
- showing characteristic of the variety
- dry with not more than 13% moisture content
- clean, practically free of any visible foreign matter
- sound, free of defect and deterioration in quality that may make it unfit for brewing
- practically free of physical damage
- practically free of abnormal external moisture
- free from mycotoxin producing mould
- practically free of pests and damage caused by them affecting the general
- free of any foreign smell and/or taste.
- The dried green coffee bean must be harvested and have reached an appropriate degree of maturity, in accordance with the variety, season and the area in which they are grown.



GRED

Dried green coffee bean is classified in three classes defined below.

i) “Extra” Class

Dried green coffee bean in this class must be of superior quality. It must be practically free of defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. The total allowable of defects should not be more than 7%.

ii) Class I

Dried green coffee bean in this class must be of good quality. The following defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. The total allowable of defects should not be more than 15%.

iii) Class II

Dried green coffee bean in this class does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above. The following defects, however, may be allowed provided the coffee bean retains its essential characteristics as regards the quality, the keeping quality and presentation. The total allowable of defects should not be more than 25%.

Quality Tolerances

Type of defect	Percentage of defect		
	Extra class	Class I	Class II
Black bean	< 4.0	4.0 – 6.0	> 6.0 – 15.0
Mouldy (other than mycotoxin producing mould) and infested bean	< 5.0	5.0 – 6.0	> 6.0 – 8.0
Immature bean	< 2.0	2.0 – 3.0	> 3.0 – 8.0
Broken bean	< 3.0	3.0 – 5.0	> 5.0 – 10.0
Dried cherries	< 0.5	0.5 – 1.0	> 1.0 – 2.0
Foreign matter	< 1.0	1.0 – 1.5	1.5 – 2.0
Total allowable for defects	7.0	15.0	25.0

SAIZ

Size is determined by the diameter of the individual bean, in accordance with the following table:

Size code	Bean size (mm)
1	> 7.0
2	> 6.5 – 7.0
3	> 6.0 – 6.5
4	> 5.5 – 6.0
5	> 5.0 – 5.5
6	4.0 – 5.0

For all classes, 10% by weight for beans corresponding to the size immediately above and/or below that indicated on the package.



TEBU



TEBU

English: Sugar cane

Nama Botani: *Saccharum officinarum* Linn

Rujukan Standard

FS 041: 2011 SPESIFIKASI STANDARD
TEBU BATANG

KEPERLUAN MINIMA

- Telah mencapai tahap kematangan seperti yang dikehendaki oleh pasaran.
- Agak bebas daripada rosak disebabkan oleh kecederaan mekanikal, perosak, penyakit dan gangguan fisiologi.
- Agak bebas daripada kecacatan dan sesuai untuk dimakan oleh manusia.
- Telah dibuat perapian dengan sempurna untuk membuang bahagian-bahagian yang tidak boleh digunakan.
- Keratan atas bahagian batang Tebu (pucuk) tidak lebih daripada 30cm.
- Keratan bawah bahagian batang Tebu (akar) tidak lebih daripada 10cm.



GRED

Tebu Batang dikelaskan kepada tiga (3) gred, bergantung kepada keadaan dan ciri-ciri gred seperti jadual:

Gred	Spesifikasi	Kelonggaran (maksimum)	%
Premium	Ia hendaklah daripada varieti yang sama, segar, bersih dan panjang ruas lebih 10 cm. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas dari kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 5 ≤ 5 ≤ 5 ≤ 5 ≤ 5
1	Ia hendaklah daripada varieti yang sama, segar, bersih dan panjang ruas di antara 8-10 cm. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas dari kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 5 ≤ 5 ≤ 10 ≤ 10
2	Ia hendaklah daripada varieti yang sama, segar, bersih dan panjang ruas di antara 5-8cm. Mempunyai saiz dan kematangan yang seragam. Ia juga hendaklah bebas dari kecacatan atau kerosakan.	Kematangan Segar Rosak Kecacatan Keseragaman saiz	≤ 10 ≤ 10 ≤ 5 ≤ 10 ≤ 10

SAIZ

Bagi Tebu Batang, saiz ditentukan oleh panjang dalam unit sentimeter (cm) seperti mana jadual:

Saiz	Kod		Panjang (cm)
LEBIH BESAR	XL	A	> 335
BESAR	L	B	275 -335
SEDANG	M	C	215 - 275
KECIL	S	D	155