FRUITS AND VEGETABLES GRADING AND MARKING RULES

Dated

 Rules Grapes Litchi Mangoes Pomegranate Pineapple Guavas Shelling Peas Mangetout & Sugar Snap Peas Ribbed Celery Spinach Headed Cabbages Brussels Sprouts Tomatoes Bananas Plums Papayas Garlic Onions
FRUITS AND VEGETABLES GRADING AND MARKING RULES, 2004
(TO BE PUBLISHED IN THE GAZETTE)
EXTRACT FROM THE GAZETTE OF INDIA : PART II, SECTION 3, SUB SECTION (i)
Appearing on Page Nos

MINISTRY OF AGRICULTURE DEPARTMENT OF AGRICULTURE AND CO-OPERATION

NOTIFICATION

New Delhi, dated the 2004

And whereas copies of the said Gazette were made available to the public on 21st September, 2003;

And whereas the objections and suggestions received from the public in respect of the said draft rules have been duly considered by the Central Government:

Now, therefore, in exercise of the powers conferred by Section 3 of the Agricultural Produce (Grading and Marking) Act, 1937 (1 of 1937), and in supersession, of (1) the Grapes grading and Marking Rules, 1937, (2) the Plums Grading and Marking Rules, 1938, (3) the Onion Grading and Marking Rules, 1964, (4) the Banana Grading and Marking Rules, 1980, (5) the Mangoes Grading and Marking Rules, 1981, (6) the Pineapple Grading and Marking Rules, 1982, (7) the Guavas Grading and Marking Rules, 1996 and (8) the Garlic Grading and Marking Rules, 02, except as respects things done or ommitted to be done before such supersession the Central Government hereby makes the following rules, namely:-

RULES

1. Short title, application and commencement:-
(i) These rules may be called the Fruits and Vegetables Grading and Marking Rules, 2004.
(ii) They shall apply to commercial varieties of Fruits and Vegetables.
(iii) They shall come into force on the date of their publication in the Official Gazette.
2. Definitions:- In these rules, unless the context otherwise requires,-
(i) "Agricultural Marketing Adviser" means the Agricultural Marketing Adviser to the Government of India;
(ii) "Authorised packer" means a person or a body of persons who has been granted a certificate of authorisation to grade and mark Fruits and Vegetables in accordance with the grade standards and procedure prescribed under these rules;
(iii) "Certificate of Authorisation" means a certificate issued under the provisions of the General Grading and Marking Rules, 1988 authorising a person
or a body of persons to grade and mark Fruits and Vegetables with the grade designation mark;

(iv) "General Grading and Marking Rules" means the General Grading and Marking Rules, 1988 made under section 3 of the Agricultural Produce

(Grading and Marking) Act, 1937 (1 of 1937);

- (v) "Grade designation" means a designation prescribed as indicative of the quality of Fruits and Vegetables;
- (vi) "Grade designation mark" means the "Agmark Insignia" referred to in rule 3;
 - (vii) "Schedule" means a Schedule appended to these rules.
- 3. Grade designation mark.- The grade designation mark shall consist of "AGMARK insignia" consisting of a design incor- porating the certificate of

authorisation number, the word "AGMARK", name of commodity and grade designation resembling the design as set out in Schedule- I.

- 4. Grade designation and Quality:- The grade designation and quality of Fruits and vegetables shall be as set out in Schedules II to XIX.
- 5. Method of packing:- (i) Fruits and Vegetables shall be packed in such a way as to protect the produce properly.
- (ii) The materials used inside the package must be new, clean and of such a quality as to avoid causing any external or internal damage to the produce.
- (iii) The use of materials particularly of paper or stamps bearing trade specifications is permitted provided the printing or labelling has been done with non

toxic ink or glue.

(iv) Fruits and Vegetables shall be packed in each container in compliance with the recommended international code of practice for Packaging and Transport of Tropical Fresh Fruit and Vegetables (CAC/RCP 44-1995) of practice for export and as per the Instructions issued by the Agricultural Marketing adviser from time to time for domestic market. (v) The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the Fruits and Vegetables. Packages must be free of harmful foreign matter and obnoxious smell. (vi) Contents of each package or lot must be uniform and contain only Fruits and Vegetables of same origin, variety and grade designation. (vii) The visible part of the contents of the package (if present) must be representative of the entire content. (viii) Contents of package may have different fruits and vegetables of different grades as per buyer's requirements with proper labelling. 6. Method of Marking and Labelling:-(i) The grade designation mark shall be securely affixed to or printed on each package in a manner approved by the Agricultural Marketing Adviser or an officer authorised by him in this behalf. (ii) The following particulars shall be clearly and indelibly marked on each package, namely:-

(a) Name of the commodity;

	(b) Variety;
	(c) Grade designation;
	(d) Size code (if prescribed);
	(e) Lot/batch/code number;
	(f) Country of origin;
	(g) Net weight/No. of units;
	(h) Name and address of the packer/exporter;
	(i) Best before date (where applicable);
	(j) Storage condition, if any;
	(k) Date of packing;
Adviser.	(I) Such other particulars as may be specified by the Agricultural Marketing

- (iii) The ink used for marking on packages shall be of such quality which may not contaminate the product.
- (iv) The authorised packer may, after obtaining the prior approval of the Agricultural Marketing Adviser, mark his private trade mark or trade brand on the

graded packages provided that the same do not indicate quality other than that indicated by the grade designation mark affixed to the graded packages

in accordance with these rules.

7. Fruits and Vegetables may be graded and marked as per buyer's requirements for exports provided the minimum requirements specified in the relevant schedule are met.

- 8. For domestic trade, Fruits and Vegetables shall comply with the residue levels of heavy metals, pesticides, aflatoxin and other food safety parameters as specified in Prevention of Food Adulteration Rules, 1955.
- 9. Special conditions of certificate of authorisation:-In addition to the conditions specified under sub-rule (8)of the rule 3 of the General Grading and Marking Rules, 1988, every authorised packer shall follow all instructions prescribed by Agricultural Marketing Adviser from time to time.

SCHEDULE-I

(See rule 3)

(Design of Agmark insignia)



Name of Commodity:

Grade:

TOP

SCHEDULE - II

GRADE DESIGNATION AND QUALITY OF TABLE GRAPES

- 1. Table Grapes shall be fruits obtained from varieties(cultivars) of Vitis vinifera L.
- 2. MINIMUM REQUIREMENTS:
 - (i) Bunches and berries of Table grapes shall be:
 - (a) clean, sound, free of any visible foreign matter;
 - (b) free of pests, affecting the general appearance of the produce;

(c) free of damage caused by pests or diseases;
(d) free of abnormal external moisture;
(e) free of any foreign smell and/or taste;
(f) free of all visible traces of moulds;
(ii) Berries shall be intact, well formed and normally developed;
(iii) Table grapes shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for Exports.
(iv) Table grapes shall have minimum soluble solids of 16 degrees Brix.
(v) Table grapes shall have minimum sugar/ acid ratio of 20:1.
Foot Note: Pigmentation due to sun is not a defect.
3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	Grapes must be of superior quality. The bunches must be typical of variety in shape, development and colouring and have no defects. Berries nust be firm, firmly attached to the stalk, evenly spaced along the stalk and have their bloom virtually intact.	As per table`A'	5% by weight of bunches not satisfying the requirements for the grade, but meeting those of Class I grade or exceptionally coming within the tolerances of that grade.
Class I	Grapes must be of good quality. The bunches must be typical of variety in shape, development and colouring. Berries must be firm, firmly attached to the stalk and, as far as possible, have their gloom intact. The may, however, be less evenly spaced along the stalk than in the extra class. Following slight defects may be there, provided these do not affect the general appearance of the produce and keeping quality of the package. - a slight defect in shape,	- do -	10% by weight of bunches not satisfying the requirements for the grade, but meeting those of Class II grade or exceptionally coming within the tolerances of that grade.
Class II	colouring The bunches may show defects in shape, development and colouring provided these do not impair the essential characteristics	- do -	10% by weight of bunches and satisfying the requirements of the grade, but meeting the minimum

of the variety. The berries must be sufficiently firm and sufficiently attached. They may be less evenly spaced along the stalk than Class I grade. Following defects may be there, provided these do not affect the general appearance of the	requirements.
 produce and keeping quality of the package. defects in shape, defects in colouring, slight sun scorch 	
affecting the skin only, - slight bruising, - slight skin defects.	

4. OTHER REQUIREMENTS:

(i) Grapes must 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 Grapes must be such as to enable them;

to withstand transport and handling, and

to arrive in satisfactory condition at the place of destination.

TABLE 'A'

PROVISIONS CONCERNING SIZING

Size is determined by the weight of bunches(in gms.) The following minimum (in gms.) requirements per bunch are laid down for large and small berries grapes.

Grade	Large berries	Small berries
Extra class	200	150
Class I	150	100
Class II	100	75

SIZE TOLERANCE:

Extra class, Class I, Class II : 10 % by weight of bunches not satisfying the size requirements for the grade, but meeting the size requirements for the grade

immediately below.

SCHEDULE - III

GRADE DESIGNATION AND QUALITY OF LITCHI

l.	Litchis shall be fruit obtained from Varieties (cultivars) of litchi chinensis Sann. of Sapindaceae family;
2.	MINIMUM REQUIREMENTS-
(i)	Litchi shall be:-
	(a) whole, sound, fresh in appearance;
	(b) clean, free of any visible foreign matter;
	(c) free of pests affecting the general appearance of the produce;
	(d) free of damage caused by pests;
	(e) free of abnormal external moisture excluding condensation following removal from cold storage;
	(f) free of any foreign smell and/or taste;

- (g) free of damage and abrasion;
- (h) free of brown markings;
- (ii) Litchis shall have minimum equatorial diameter of 23 mm.
- (iii) Litchis shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius

Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Grade tolerances
1	2	3
Extra class	Litchis must be of superior quality. They must have the shape, development and colouring that are typical of the variety and/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.	5% by number or weight of Litchis not satisfying the requirements for the grade, but meeting those of Class I grade or exceptionally coming within the tolerances of that grade.
Class I	Litchis must be of good quality. They must be characteristic of the variety and/or commercial type.	10% by number or weight of Litchis not satisfying the
	The following slight defects however may be allowed provided	requirements of the grade, but meeting those

	these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.	of Class II grade or, exceptionally coming within the tolerances of that grade.
	- slight defects in shape	
	- slight defects in colouring;	
	- slight skin defects	
	Provided these do not exceed a total area of 0.25 sq.cm.	
Class II	This grade includes Litchis which do not quality for inclusion in the higher grades, but satisfy the minimum requirements specified in general characteristics. The following defects may be allowed, provided, the Litchis retain their essential characteristics as regards the quality, the keeping quality and presentation.	10% by number or weight of Litchis not satisfying the requirements of the grade, but meeting the minimum requirements.
	- defects in shape,	
	- defects in colouring,	
	- skin blemishes provided these do not exceed a total area of 0.5 sq. cm.	

4. OTHER REQUIREMENTS:

(i) Lichis shall be carefully picked and must be sufficiently developed and matured. The development and condition of the Litchis must be such as to enable

them;

- to withsta	and transport and han	dling, and	
- to arrive	in satisfactory condition	on at the place of destinati	on.
	•	•	
(ii) Litchis sha	all be presented under	one of the following forms	s;
(a) Individua	the maximum len	ne pedicel must be cut at t gth of the stalk must not e top of the fruit. Litchis in ividually.	extend more than 2
(b) In bunche	at	the bunch must include m tached and well formed Li ust not exceed 15 cm. in I	tchis. The branch
5. PROVISIONS (CONCERNING SIZIN	G:-	
_	Grade	Maximum equatorial	
		diameter (in mm.)	
		(minimum)	
		(minimum)	
-			
	Extra clas	s 33	

Class-I

28

Foot note:1) A maximum size range of 10 mm. between fruits in each package is permitted.

2) Size tolerance - For all grades, 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 23 mm.

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SCHEDULE - IV

GRADE DESIGNATION AND QUALITY OF MANGOES

- 1. Mangoes shall be fruits obtained from Varieties (cultivars) of plant Mangifera indica L. of Anacardiaceae family.
- 2. MINIMUM REQUIREMENTS

(i)	Mangoes shall be:-
	(a) whole, firm, sound and fresh in appearance. Produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
	(b) clean, practically free of any visible foreign matter;
	(c) free of black necrotic stains or trails;
	(d) free of marked bruising;
	(e) free of abnormal external moisture, excluding condensation following removal from cold storage;
	(f) free from damage caused by low/or high temperature;
	(g) free of any foreign smell and/or taste;
	(h) free of damage caused by pests;
	(i) sufficiently developed and display satisfactory ripeness;
(ii)	When a peduncle is present, it shall not be no longer than 1.0 cm.
` '	Mangoes shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius
	Commission for exports

Grade designation	Grade Requirements	Grade tolerances
1	2	3
Extra class	Mangoes 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 appearances of the produce, the quality, the keeping quality and presentation in the package.	5% by number or weight of mangoes not satisfying the requirements for the grade, but meeting those of Class I or exceptionally, coming within the tolerances of that grade.
Class I	Mangoes must be of good quality. They must be characteristic of the variety. Mangoes may have following slight defects, 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 skin defects due to rubbing or sunburn, suberized stains due to resin exudation (elongated trails included) and healed bruises not exceeding 2,3,4,5 sq. cm. for size groups A, B, C, D respectively	10% by number or weight of mangoes not satisfying the requirements for the grade, but meeting those of Class II grade or, exceptionally coming within the tolerances of that grade.

Class II This grade includes mangoes 10% by number or weight of which do not qualify for inclusion mangoes not satisfying the in the higher grades, but satisfy requirements of the grade, the minimum requirements. but meeting the minimum Mangoes may have following requirements. defects, provided they retain their essential characteristics as regards the quality, keeping quality and presentation. - defects in shape, - slight skin defects due to rubbing or sunburn, suberized stains due to resin exudation (elongated trails included) and healed bruises not exceeding 4,5,6,7 sq. cm. for size groups A, B, C, D

Foot note: In Class I and Class II, scattered suberized rusty lenticels, as well as yellowing of green varieties due to exposure to direct sunlight, not exceeding 40% of the surface and not showing any signs of necrosis are allowed.

respectively

4. OTHER REQUIREMENTS

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

 to ensure a continuation of the maturation process until they reach the appropriate degree of maturity

corresponding to the varietal characteristics,

- to withstand transport and handling, and

- to arrive in satisfactory condition at the place of destination.

5. PROVISIONS CONCERNING SIZING

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

	Size	Weight	Maximum perm	issible differenc	e
ruits within	n the		Code	(in grams)	between
			package(in gra	ms)	
			А	100-200	50
			В	201-350	75
			С	351-550	100
			D	551-800	125

Size Tolerances:

For all grades, 10% by number or weight of mangoes in each package are permitted to be outside (above or below) the group size range by 50% of the maximum permissible difference for the group. In the smallest size range, mangoes must not be less than 90 gms. and for those in the largest size range a maximum of 925 grams applies, as follows:

	Size	Normal size	– Permissible	Max. permiss	ible
	code	range	size range.	difference be	
			(10% of fruit/	fruit in each p	ackage
			package exceed	-	
			ing the normal		
			size range).		
50.0			Α	100-200	90-220
00.0					
			В	201-350	180-425
112.5					
			C	351-550	251-650
150			J	33. 330	20. 000
187.5			D	551-800	426-925

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SCHEDULE - V
GRADE DESIGNATION AND QUALITY OF POMEGRANATE
Pomegranates shall be fruits obtained from Varieties (cultivars) of plant Punica granatum L. of Puniaceae family;
2. MINIMUM REQUIREMENTS:
(i) Pomegranates shall be :
(a) fresh in appearance;
(b) mature and solid in feel;
(c) clean, free from any visible foreign matter;
(d) free from pests affecting the general appearance of the produce;

(e) free of dama	(e) free of damage caused by pests;					
(f) free of cracking	(f) free of cracking of skin, mechanical injury/rubbing, staining;					
(0)	(g) free of abnormal external moisture excluding condensation following removal from cold storage;					
(h) free of any fo	preign smell or taste;					
(i) free of any pr	onounced blemishes;					
(ii) Pomegranates should not be affected by rotting or deterioration such as to make it unfit for consumption.						
ii) Pomegranates shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.						
3. CRITERIA FOR GRADE DESIGNATION:						
Grade designation	Grade Requirements	Grade tolerances				
1	2	3				
Extra class	Pomegranates must be of	5% by number or weight				

		I
	superior quality. They must have the shape, development and colouring that are typical 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.	of pomegranate not satisfying the requirements for the grade, but meeting those of Class I grade or exceptionally coming within the tolerances of that grade.
Class I	Pomegranates must be of good quality. They must be characteristics of the variety and/or commercial type. The following slight defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.	10% by number or weight of Pomegranate not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally coming within the tolerances of that grade.
	slight defects in shapeslight defects in colouring;	
	- slight skin defects (i.e. scratches, scars, scraps and blemishes) provided these do not exceed 5% of the total surface area.	
Class II	This grade includes Pomegranates which do not quality for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there provided the Pomegranates retain their essential characteristics as regards the quality, the keeping quality and presentation.	10% by number or weight of Pomegranates not satisfying the requirements of the grade, but meeting the minimum requirements.
	- defects in shape,	
	- defects in colouring,	
	 skin defects(scratches, scars, scrapes and blemishes) provided these do not exceed 	

10% of total surface area.	

4. OTHER REQUIREMENTS

Pomegranates must be 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 Pomegranate must be such as to enable them;

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

5. PROVISIONS CONCERNING SIZING

Size is determined by the weight or maximum diameter of the equatorial section of the fruit, in accordance with the following table:

Size code Weight in grams Diamater in mm.

(minimum) (minimum)

Α	400	90	
В	350	80	
С	300	70	
D	250	60	
E	200	50	

Size tolerance:

(i) For all grades, 10% by number or weight of pomegranate corresponding to the size immediately above and/or below than indicated on the package.

(ii)The maximum size range of 8 mm. between fruit in each package is permitted.

TOP

SCHEDULE - VI

GRADE DESIGNATION AND QUALITY OF PINEAPPLE

1.	Pineapple shall be fruit obtained from Varieties (cultivars) of plant Ananas comosus (L) Merry. of Bromeliaceae family;
2.	MINIMUM REQUIREMENTS
(i)	Pineapple shall be:
	(a) whole, with or without the crown, fresh in appearance;
	(b) Crown when present, shall be free of dead or dried leaves;
	(c) clean, sound, free of any visible foreign matter, free of internal browning, free from pests affecting the general appearance of the produce.
	(d) free of damage caused by pests;
	(e) free of abnormal external moisture, excluding condensation following removal from cold storage;
	(f) free of any foreign smell and/or taste;
	(g) free of pronounced blemishes;
	(h) free of damage caused by low and/or high temperature;

(ii) Pineapples shall comply with the residue levels of heavy metals, Pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Total soluble solids in Brix degrees (Minimum)	Grade tolerances
1	2	3	4
Extra class	Pineapples must be of superior quality. They must be characteristic of variety and/or commercial type. They must be free of defects. Very slight superficial defects may be there, provided these do not affect general appearance of the produce, the quality, the keeping quality and presentation in the package. The crown, if present, shall be simple and straight with no sprouts and shall be between 50 and 150% of the length of the fruit with trimmed or untrimmed* crowns.	12	5% by number or weight of Pineapples not satisfying the requirements of the grade, but meeting of those of Class I grade or, exceptionally coming within the tolerances of that grade.
Class I	Pineapples must be of	12	10% by number or

	good quality. They must be characteristics 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.		weight of Pineapples not satisfying the requirements of the grade, but meeting those of class II grade or exceptionally, coming within the tolerance of that grade.
	 slight defects in shape slight defects in colouring; including sunspots; slight skin defects (i.e. scratches, scars, scraps and blemishes) not exceeding 4% of the total surface area. The defects must not, in any case, affect the pulp of the fruit. 		
	The crown, if present shall be simple and straight and slightly curved with no sprouts, and shall be between 50 and 150% of the length of the fruit for pineapples with trimmed or untrimmed crowns.		
Class II	Pineapples which do not qualify for inclusion in the higher grades, but satisfy the minimum	12	10% by number or weight of Pineapples not satisfying the requirements of the

requirements.	grade but meeting the minimum requirements.
The following defects may be allowed, provided the pineapples retain their essential characteristics as regards the general appearance, quality, the keeping quality and presentation - defects in shape, - defects in colouring;	
including sunspots; - skin defects(scratches, scars, bruises and blemishes) not exceeding 8% of the total surface area.	
The defects must not, in any case, affect the pulp of the fruit.	
The crown, if present, shall be simple or double and straight or slightly curved, with no sprouts.	

4. OTHER REQUIREMENTS

(i)	Pineapples must 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 pineapples must be such as to enable them;
	- to withstand transport and handling, and
	- to arrive in satisfactory condition at the place of destination.
	When peduncle is present, it shall be no longer than 2.0 cm. and the cut must asversal, straight and clean. The fruit must be physiologically ripe i.e.
ove	without evidence of unripeness (opaque, flavourless, exceedingly porus flesh) er ripeness (exceedingly transulent or fermented flesh).
*	Trimming consists in tearing some leaves off the top of the crown.
5.	PROVISIONS CONCERNING SIZING
700	Size is determined by the average weight of the fruit with a minimum weight of g. except for small size varieties (such as victoria and queen) which can
	have a minimum weight of 250 g. in accordance with the following table:
	Sizo Codo Averago weight(Lor 129/)
	Size Code Average weight(+ or -12%) (in grams)
	(g)

A	2750	2280
В	2300	1910
С	1900	1580
D	1600	1330
E	1400	1160
F	1200	1000
G	1000	830
Н	700	560
1	<700	<560

with crown

without crown

SIZE TOLERANCE:

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

SCHEDULE - VII

GRADE DESIGNATION AND QUALITY OF GUAVAS

1. fami	Guavas shall be fruits obtained from plant Psidium guajava (L) of Myrtaceae ly.
2.	MINIMUM REQUIREMENTS
(i) G	uavas shall be:
	(a) whole, firm, sound and clean;
	(b) free from any visible foreign matter;
	(c) practically free from bruising;
	(d) free of pests affecting the general appearance of the produce;
	(e) 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;
- (ii) Guava shall comply with the residue levels of heavy metals, Pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3.CRITERIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Grade tolerances
1	2	3
Extra class	Guavas must be of superior quality. They must be characteristic of variety and/or commercial type. They must be free of defects. Very slight superficial defects may be there, provided these do not affect general appearance of the produce, the quality, the keeping quality and presentation in the package.	5% by number or weight of guavas not satisfying the requirements of the grade, but meeting those of Class I grade or, exceptionally coming within the tolerances of that grade.
Class I	Guavas must be of good quality. They must be characteristics of the variety and/or commercial type. 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	10% by number or weight of guavas not satisfying the requirements of the grade, but meeting those of class II grade or exceptionally, coming within the tolerance of that grade.

	the package.	
	 slight defects in shape and colour; slight skin defects due to rubbing and other superficial defects such as sunburns, blemishes and scars not exceeding 5% of the total surface area, The defects should not affect the pulp of the fruit. 	
Closs II	This grade includes guevas which	100/ by number or weight of
Class II	This grade includes guavas which do not quality for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided the guavas retain their essential characteristics as regards the general appearance, quality, the keeping quality and presentation;	10% by number or weight of guavas not satisfying the requirements of the grade but meeting the minimum requirements with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.
	 defects in shape and colour; skin defects due to rubbing and other defects such as sunburns, blemishes and scars not exceeding 10% of the total surface area. 	
	The defects should not affect the pulp of the fruit.	

4. OTHER REQUIREMENTS

The guavas 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 guavas must be such as to enable them;

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

5. PROVISIONS CONCERNING SIZING

Size is determined by the weight or maximum diameter of the equatorial section of the fruit, in accordance with the following table:

Size Code Weight Diameter

(in grams) (in millimeters)

A >350

В	251-350	86-95
С	201-250	76-85
D	151-200	66-75
Е	101-150	54-65
F	61-100	43-53

SIZE TOLERANCES:

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

TOP

SCHEDULE - VIII

GRADE DESIGNATION AND QUALITY OF SHELLING PEAS

1. Shelling peas shall be obtained from varieties (cultivars) of Pisum sativum L.

2. MINIMUM REQUIREMENTS

(i).	The pods shall be -
	(a) intact and sound;
	(b) clean, free of any visible foreign matter including parts of the flowers;
	(c) fresh in appearance;
	(d) free from pests and damage caused by pests;
	(e) free from abnormal external moisture;
	(f) free from foreign smell and/or taste;
(ii)	The seeds shall be :-
	(a) fresh;
	(b) sound;
	(c) normally developed;
	(d) free from pests and damage caused by pests;
	(e) free from foreign smell and/or taste;
(iii)	Pods and seeds shall not be affected by rotting or deterioration such as to make it unfit for consumption.
	it drifte for consumption.
(iv)	They shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	Shelling peas shall be of good quality. They must be characteristic of variety and/or commercial type. The pods shall be:- fresh and turgid; free from damage caused by hail; free from damage caused by heating; with peduncles attached; if removed it should be neatly cut; well filled containing at least five seeds.	Not required	5% by weight of peas not satisfying the requirements, but meeting those of Class I grade.
	- well formed;		
	 tender; succulent and sufficiently firm, they should become flat without disintegrating 		

	1		<u> </u>
	when squeezed between to fingers;		
	- at least half of the full grown size but not full grown;		
	- non;-farinaceous;		
	 undamaged without cracks in the skin of the seeds. 		
Class I	shelling peas shall be of good quality. They must be characteristic of the variety and/or commercial type. The pods shall be:- fresh and turgid; free from damage cuased by hail; free from damage caused by heating; with peduncles attached, if removed it should be neatly cut; well filled contining at least five seeds.	Not required	10% by weight of peas not satisfying the requirements, but meeting those of class I grade.
	The seeds shall be:-		
	- well formed;		
	- tender;		
	succulent and sufficiently firm, they should become flat without disintegrating when squeezed		

	between to fingers;		
	 at least half of the full grown size but not full grown; 		
	- non-farinacious;		
	 undamaged without cracks in the skin of the seeds. 		
Class II	The pods - - shall be fresh and turgid; - with peduncle attached; if removed it should be neatly cut; - shall contain atleast three seeds; - may be riper than those in Extra class grade, over mature pods are to be excluded, the pods may have following defects; provided they retain their essential characteristics as regards the quality, the keeping quality and presentation; - slight skin defects, injuries & bruises provided they are not progressive and there is no risk of the seeds being affected; - slight defects in	Not required	10% by weight of peas not satisfying the requirements of the grade but meeting the minimum requirements.
	shape;		

- slight defects in colouring;	
- some loss of freshness.	
Seeds may have-	
- slight defects in shape;	
- slight defects in colouring;	
- slightly harder;	
- slightly damaged.	

4. OTHER REQUIREMENTS

- (i). The peas shall be sufficiently developed and conditions shall be such as to enable them:
 - to withstand transport of handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii). Seeds if graded and packed separately, shall be marked "Pea seeds".

TOP

GRADE DESIGNATION AND QUALITY OF MANGETOUT (SNOW PEAS) AND SUGAR SNAP PEAS

1.	The Mangetout(Snow peas) and sugar snap peas shall be obtained from varieties (cultivars) of Pisum sativum L.
2.	MINIMUM REQUIREMENTS
(i) ⁻	The pods shall be -
	(a) intact and sound;
	(b) clean, free of any visible foreign matter including parts of the flower;
	(c) free from hard filaments or films;
	(d) free from abnormal external moisture;
	(e) free from pest and damage caused by pests;
	(f) free of any foreign smell and/or taste;
(ii)	The pods shall not be affected by rotting or deterioration such as to make it unfit for consumption.
(iii)	Mangetout (snow peas) and sugar snap peas shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	The peas shall be of good quality. They must be characteristic of variety and/or commercial type. The seeds if present shall be small and undeveloped.	Not required	5% by weight of peas not satisfying the requirements of the grade, but meeting those of Class I grade.
	The pods shall be:-		
	- characteristics of the variety in shape, size and colouring;		
	- free and turgid;		
	- with peduncles attached; if removed it should be neatly cut;		
	- free from damage by hail;		
	free from damage caused by heating;		
Class I	The peas shall be of good quality. They must be characteristic of the variety and/or commercial type. The seeds if present shall be small and undeveloped.	Not required	10% by weight of peas not satisfying the requirements, but meeting those of class II grade.

	The pods shall be:-		
	- characteristics of the variety in shape, size and colouring;		
	- fresh and turgid;		
	- with peduncles attached, if removed it should be neatly cut;		
	- free from damage caused by hail;		
	- free from damage caused by heating;		
Class II	This grade includes peas; which do not qualify for inclusion in Class I grade but satisfy the minimum requirements. The seeds, if present, can be slightly more developed than Extra class.	Not required	10% by weight of peas not satisfying the requirements of the grade but meeting the minimum requirements.
	- The following defects of the pods may be allowed provided the peas retain their essential characteristics as regards the quality, the keeping quality and presentation:-		
	 slight skin defects, injuries bruises; 		
	- slight defects in shape; including those due to the seed formation;		
	- slight defects in		

colouring;	
- some loss of freshness excludi wilted and uncoloured pods.	

4. OTHER REQUIREMENTS

- (i) The pods shall be sufficiently developed and condition shall be such as to enable them:-
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) Package shall be marked "trimmed", `topped' or other indications for peas that have their peduncle and/or blossom end removed, where appropriate.

TOP

SCHEDULE - X

GRADE DESIGNATION AND QUALITY OF RIBBED CELERY

1. Ribbed celery shall be obtained from Varieties (cultivars) Apium graveolens L. var. dulce Mill;

2. MINIMUM REQUIREMENT
(i) Ribbed celery shall be -
(a) fresh in appearance;
(b) clean and free of any visible foreign matter;
(c) free from damage caused by frost;
(d) free from cavities, suckers and flower stems;
(e) free from pests and damage caused by pests;
(f) free of excessive external moisture, properly dried if washed;
(g) free of any foreign smell and/or taste;
(ii) Whole, upper part of it may be trimmed.
(iii) It shall not be rotten or deteriorated so as to make it unfit for consumption;
(iv) It shall be normally developed, having regard to the production period.

- (v) Main root should not exceed 5 cm in length and should be well cleaned.
- (vi) Ribbed Celery shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commision for exports.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	Ribbed celery shall be of quality, in shape and free of traces of disease on leaves and leaf stalks. The leaf stalk shall not be broken, stringy, crushed or split. In the case of balanced ribbed celery, the leaf stalk shall be white to yellowish white or greenish white in colour for atleast half of their length.	As per Table 'A'	5% by number of ribbed celery not satisfying the requirements of the grade, but meeting the requirements for Class I grade.
Class I	Ribbed celery must be of good quality, regular in shape and free of traces of disease on leaves and leaf stalks. The leaf stalk shall not be broken, stringy, crushed or split. In the case of blanched ribbed celery, the leaf stalk shall be white to yellowish white or greenish white in colour for	As per Table 'A'	10% by number of ribbed celery not satisfying the requirements of the grade, but meeting the requirements for Class II grade.

	atleast half of their length.		
Class II	Ribbed celery in this grade may have slight traces of rust, deformation or slight bruises and have not more than two leaf stalk that are broken, crushed or split. In the case of blanched ribbed celery, the leaf stalk shall be white to yellowish white or greenish white in colour for atleast one third of their length.	As per Table 'A'	10% by number of ribbed celery not satisfying the requirements of the grade but meeting the minimum requirements.

1	OT	LED	DEO	UIRF	MENITO	
4		пгк	RFW	UIRFI	MEIMIS	-

- (i) It's condition shall be such as to allow it -
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) The ribbed celery may be presented-
 - either bundled in the package,
 - or stacked in the package.

When presented in bundles, all bundles in the same package shall have the same number of pieces.

(iii) The content of each package shall be uniform and comprise only ribbed celery of the same origin, quality, colour and size.

Table `A'

Provisions concerning sizing

Size is determined in relation to net weight. The minimum weight of ribbed celery shall be 150 gms.

Size Code	Weight in gms.	Difference in e in the same package
		(max.)
А	150 - 500	100
В	501 - 800	150
С	over 800 gms.	200

Size Tolerance- for all grades, 10% by number of ribbed celery not confirming to size requirements.
<u>TOP</u>
SCHEDULE - XI
GRADE DESIGNATION AND QUALITY OF SPINACH
1. Spinach shall be obtained from Varieties (cultivars) of Spinacia oleracea L.
2. MINIMUM REQUIREMENTS
(i) Spinach shall be -
(a) fresh in appearance,
(b) clean, free of visible foreign matter;
(c) free from pests and damage caused by pests;

(d) free of floral stems;

(f) properly drained if washed; (ii) It shall not be affected by rotting or deterioration such as to make it unfit for consumption. (iii) In the case of spinach heads, the portion comprising of the root shall be cut close to the base of the outer leaves. (iv) Spinach shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commissioin for exports. 3. CRITERIA FOR GRADE DESIGNATION Grade Requirements Grade Provision Grade tolerances designation concerning sizing 1 3 4 Spinach shall be of good Extra class Not 5% by weight of quality. It may be in leaf or Spinach not satisfying required in heads. The leaves shall the requirements for the grade, but meeting the be requirements for Class I normal in colour and grade. appearance for the

variety and time of

harvest;

(e)

free of any foreign smell and/or taste;

	 free from damage by frost, animal parasites or diseases impairing appearance or edibility. In the case of leaf spinach, the leaf stem must not exceed 10 cm. in length. 		
Class I	Spinach shall be of good quality. The leaves shall be - normal in colour and appearance for the variety and time of harvest; - free from damage caused by frost, animal parasites or diseases impairing appearance or edibility. - In the case of leaf spinach, the leaf stem must not exceed 10 cm. in length.	Not required	10% by weight of spinach not satisfying the requirements for the grade, but meeting the requirements for Class II grade.
Class II	Leaf spinach may have slight defects in colour and slight defects caused by frost. However, it shall satisfy the minimum requirements.	Not required	10% by weight of spinach not satisfying the requirements of the grade but meeting the minimum requirements. In the case of spinach heads, a tolerance of 10 % by weight of heads, having roots attached which do not exceed 1cm in length from the base of the outer leaves may be allowed.

4. OTHER REQUIREMENTS
(i) The Spinach shall be sufficiently developed and in such condition as to enable it:
to withstand transport and handling, andto arrive in satisfactory condition at the place of destination.
(ii) Leaf spinach and spinach heads shall not be mixed in the same package.
(iii)Each package shall be marked `leaf spinach' or` spinach heads' as the case may be.
<u>TOP</u>
SCHEDULE -XII
GRADE DESIGNATION AND QUALITY OF HEADED CABBAGES
 Headed Cabbages shall be obtained from varieties (cultivars) of Brassica oleracea L. var. capitata L. (including red cabbages and pointed cabbages) and from Brassica oleracea L. var. bullata DC and var. sabauda L (savoy cabbages);
2. Minimum requirements:

(i) ⊢	leade	d Cabbages shall be
	(a)	fresh in appearance, sound and intact;
	(b)	free of bursts and showing no signs of flower development;
	(c)	free of bruises and injury;
	(d)	free of damage due to frost;
	(e)	free from pests and damage caused by pests;
	(f)	free of abnormal external moisture;
	(g)	free of any foreign smell and/or taste;
(ii)	It sh	all not be rotten or deteriorated so as to make it unfit for consumption.
(iii)		stem should be cut slightly below the lowest point of leaf growth. Cut should be clean and leaves should remain firmly attached.
(iv)	pest	aded Cabbage shall comply with the residue levels of heavy metals, icides and other food safety parameters as laid down by the Codex entarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	Headed Cabbage shall be of good quality and possess all the characteristics typical of the variety, they should be compact, having regard to the species. Headed Cabbages, according to the variety, must have firmly attached leaves. They should be uniform in shape and colour Store headed cabbages may have some of their outer leaves removed. Green Savoy headed cabbages and early headed cabbages, taking into account their variety, must be properly trimmed, but in doing so a number of leaves may be left for protection. They may have following slight defects:- - small cracks in the outer leaves, - slight bruising and light trimming of the outer leaves, provided that it does not affect the good condition of the produce.	Not required	5% by number or weight of headed cabbages not satisfying the requirements for the grade, but meeting the requirements for Class I grade.
Class I	Headed Cabbage shall be of good quality and possess all the characteristics typical of the	Not required	10% by number or weight of headed cabbages not satisfying the requirements for

	variety. They should be compact, having regard to the species. Headed Cabbages, according to the variety, must have firmly attached leaves. They should be uniform in shape and colour Store headed cabbages may have some of their outer leaves removed. Green Savoy headed cabbages and early headed cabbages, taking into account their variety, must be properly trimmed, but in doing so a number of leaves may be left for protection. They may have following slight defects: - small cracks in the outer leaves, - slight bruising and light trimming of the outer leaves, provided that it does not affect the good condition of the poduce.		the grade, but meeting the requirements for Class II grade.
Class II	Headed Cabbage which do not qualify for inclusion in the Class I grade, but meet the minimum requirements. They may have following defects. - Cracks in the outer leaves, - More of the outer leaves may be removed, - Larger bruises and the outer leaves may be more extensively trimmed, - Less compact.	Not required	10% by number or weight of headed cabbages not satisfying the requirements of the grade but meeting the minimum requirements.

T			
4. OTHER REQUI	REMENTS:		
Headed Cabl	page must be such as	to enable them	
- to withstand	I transport and handlin	ng, and	
- to arrive in s	satisfactory condition	at the place of destin	ation.
Table `A'			
5. Provisions cond	erning sizing;		
Size is determined shall not be less the		ght. The minimum w	eight of headed cabbage
Shall not be less ti	ian 200 gms.		
	Size Code	Weight in grms.	
	0.20 0000	Wolght in gime.	
-			
	Α	201 - 600	
	В	601 - 1200	
	С	1201 and above	

Sizing is compulsory for headed cabbages presented in packages. In that case, the weight of the heaviest head in any one package shall not be more than double
the weight of the lightest head.
Size Tolerance - For all classes 10% by number or weight of Headed Cabbages.
TOD
<u>TOP</u>
SCHEDULE – XIII
GRADE DESIGNATION AND QUALITY OF BRUSSELS SPROUTS
1. Brussel Sprouts shall be auxilary buds growing along the vertical stem of varieties (cultivars) of Brassica oleracea L. var. bullata subazr. gemmifera DC.
2. MINIMUM REQUIREMENTS:
(i) Brussels Sprouts shall be
(a) intact;

	(b)	sound, fresh in appearance;
	(c)	clean, free of any visible foreign matter;
	(d)	not frozen;
	(e)	free from damage caused by pests;
	(f)	free of insects and/or other parasites;
	(g)	free of abnormal external moisture;
	(h)	free of any foreign smell and/or taste;
(ii)	l k	stalk of trimmed Brussels Sprouts must be cut just beneath the outer eaves, the stalk of untrimmed Brussels sprouts must be fractured at the base; the cut or fracture must be clean, without other parts of the Plant adhering.
(iii)	ŗ	ssels Sprouts shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.
3. C	RITE	RIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances		
1	2	3	4		
Extra class	Brussels sprouts shall be of superior quality. They must be: - firm - closed - free of damage by frost.		5% by weight of brussels sprouts not satisfying the requirements of the grade, but meeting the requirements for Class I or exceptionally, coming within the tolerances for that grade.		
	Trimmed Brussels sprouts must be well coloured. For untrimmed brussels sprouts, slightly discoloured basal leaves are allowed. Slight damage to the outer leaves, caused by picking, grading or packing is also allowed, provided that it does not affect the good condition of the produce.				
Class I	Brussels sprouts shall be of superior quality. They must be: - firm - closed - free of damage by frost.		10% by weight of brussels sprouts not satisfying the requirements of the grade, but meeting the requirements for Class II or exceptionally, coming within the tolerances for that grade.		
	Trimmed Brussels sprouts must be well coloured. For untrimmed brussels sprouts, slightly discoloured basal leaves are allowed. Slight damage to the outer leaves,				

	caused by picking, grading or packing is also allowed, provided that it does not affect the good condition of the produce.	
Class II	This grade includes Brussels sprouts which does not qualify for inclusion in class I. Brussel sprouts shall be of good quality. Brussel sprouts in this class may be:	10% by weight of brussels sprouts not satisfying the requirements of the grade but meeting the minimum requirements.
	less firmless closed but not open	
	 may show slight damage due to frost. 	

4. OTHER REQUIREMENTS

The conditions of the Brussels sprouts must be such as to allow them:

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

5. PROVISION CONCERNING SIZING

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

The minimum diameter is

II.	- 10 mm for trimmed Brussels sprouts graded in Extra class, Class I and Class
	- 15 mm for untrimmed Brussels sprouts graded in Extra class and Class I.
	For Brussels sprouts in Extra class and Class I, the difference between the largest and the smallest sprout in any one package must not exceed 20 mm.
TOI	<u>-</u>
	SCHEDULE - XIV
	GRADE DESIGNATION AND QUALITY OF TOMATOES
1. (i) Tomatoes shall be fruits obtained from varieties of Lycopersicum esculentum Mill of the Solanaceae family.
(ii) Tomatoes may be classified into four commercial types :
	- Round
	- Ribbed
	- Oblong or elongated
	- Cherry tomatoes (including cocktail tomatoes)
2. N	IINIMUM REQUIREMENTS :

Tomatoes shall be

(i) (a) whole, sound and fresh in appearance;
(b) clean, free of any visible foreign matter;
(c) free of pests affecting the general appearance of the produce;
(d) free of damage caused by pests;
(e) free of abnormal moisture excluding condensation following removal from cold storage;
(f) free of any foreign smell and/or taste;
(ii) In the case of trusses of tomatoes, the stalk must be fresh, healthy, clean and free from all leaves and any visible foreign matter.
(iii) Tomatoes shall comply with the residue levels of heavy metals, Pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.
3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Provision concerning sizing	Grade tolerances
1	2	3	4
Extra class	Tomatoes shall be of superior quality. They shall have firm fresh and must be characteristics of the variety as regards shape, appearance and development. They must be free of green backs and other defects. Very slight superficial defects may be there provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in		5% by number or weight of tomatoes not satisfying the requirements of the grade, but meeting those of Class I or exceptionally, coming within the tolerances of that grade.
Class I	Tomatoes shall be of good quality. They shall have reasonably firm flesh and shall be characteristics of the variety as regards shape, appearance and development. They must be free of cracks and visible green back. The following slight defects may be there provide these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package: slight superficial defects may be there 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 and development;		10% by number or weight of tomatoes not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.

- a slight defect in colouring;		
- slight skin defects;		
 very slight bruises; "Ribbed" tomatoes may show: 		
 healed cracks not more than 1 cm. long; 		
- no excessive protuberances;		
- small non lignified unbilical scars;		
 suberization of the stigma upto 1 sq.cm; 		
- no more than one headed scar;		
- unbilical lignified scars not greater than 1 sq.cm. or linear Iscar no longer; than 2/3 rd of the greatest diameter of the fruit.		
Tomatoes shall be reasonably firm flesh and shall be character(but may be slightly less firm than in class I) and must not show unhealed cracks. Following defects may be there provided the tomatoes retain their essential characteristics as regards the quality, the keeping quality and presentation. - defects in shape, development and colouring; - skin defects or bruises, provided the fruit is not seriously affected;		10% by number or weight not satisfying the requirements of the grade but meeting the minimum requirements. In case of trusses of tomatoes, 10 % by number or weight of tomatoes detached from the stalk.
	colouring; - slight skin defects; - very slight bruises; "Ribbed" tomatoes may show: - healed cracks not more than 1 cm. long; - no excessive protuberances; - small non lignified unbilical scars; - suberization of the stigma upto 1 sq.cm; - no more than one headed scar; - unbilical lignified scars not greater than 1 sq.cm. or linear Iscar no longer; than 2/3 rd of the greatest diameter of the fruit. Tomatoes shall be reasonably firm flesh and shall be character(but may be slightly less firm than in class I) and must not show unhealed cracks. Following defects may be there provided the tomatoes retain their essential characteristics as regards the quality, the keeping quality and presentation. - defects in shape, development and colouring; - skin defects or bruises, provided the fruit is not	colouring; - slight skin defects; - very slight bruises; "Ribbed" tomatoes may show: - healed cracks not more than 1 cm. long; - no excessive protuberances; - small non lignified unbilical scars; - suberization of the stigma upto 1 sq.cm; - no more than one headed scar; - unbilical lignified scars not greater than 1 sq.cm. or linear Iscar no longer; than 2/3rd of the greatest diameter of the fruit. Tomatoes shall be reasonably firm flesh and shall be character(but may be slightly less firm than in class I) and must not show unhealed cracks. Following defects may be there provided the tomatoes retain their essential characteristics as regards the quality, the keeping quality and presentation. - defects in shape, development and colouring; - skin defects or bruises, provided the fruit is not

- healed cracks not more than 3 cm. in length.
"Ribbed" tomatoes may show:
- more pronounced protuberances but without being misshapen;
- one umbilicus;
- unbilical lignified scars not greater than 2 sq.cm;
- fine blossom scar in elongated form.

4. OTHER REQUIREMENTS:

- (i) The contents of each package must be uniform and contain tomatoes of same origin, variety and/or commercial type, quality and size.
- (ii) The ripeness and colouring of tomatoes in "Extra class" and class I must be uniform. In addition, the length of `Oblong' tomatoes must be sufficiently uniform.
- (iii) The tomatoes may be presented as follows:
 - (a) As individual tomatoes, with or without calyx and short stalks;

	1	from 30	to 34		
		Minimum*	Max	imum	
	Size Code	Di	ameter (in m	m.)	
accorda	s determined by the maximur ance with following table. The es. The minimum size is set for "oblong" tomatoes:	e provisions s	hall not apply	to "cherry"	and
5. PRO	VISIONS CONCERNING SIZ	ZING:-			
	- to arrive in satisfactory co	ondition at plac	e of destinati	on.	
	- to withstand transport and	d handling, and	t		
(iv) them :	The development and condi	tions of the tor	natoes shall l	be such as to en	able
	- in case of trusses of "Che	erry" tomatoes	6 (4 if prepac	ckaged).	
	- 3 (2 if prepackaged) or				
E) As trusses of tomatoes, (in Each inflorescence or part of ollowing number of tomatoes	inflorescence).

	2	from 35	to	39	
	3	from 40	to	46	
	4	from 47	to	56	
	5	from 57	to	66	
	6	from 67	to	81	
	7	from 82	to	101	
and over				8	from 102

^{*} When the tomato in vertical position can pass through a circular opening of the designated diameter.

(i) - Observance of the sizing scale is compulsory for "Extra class" and "class I" tomatoes;

^{@ —}When the tomato in any position can pass through a circular opening of the designated diameter.

- (ii) The sizing scale shall not apply to trusses of tomatoes.
- (iii) For all classes:

10% by number or weight of tomatoes corresponding to the size immediately above or below that indicated on the package with a minimum of

33 mm. for "round" and "ribbed" tomatoes and 28 mm. for "Oblong" tomatoes.

6. PROVISIONS CONCERNING COLOUR:

Following terms may be used in the description of the colour as an indication of the storage and brightness of any lot and matured tomatoes.

- Mature green: when the tomatoes present a yellow colour;
- Green: when the surface of the tomato is completely green varying from light to dark green.
- Breakers : when there is a definite break in colour from green to tannish yellow, pink or red on not more than 10% of the surface.
- Mottled: When yellow, rose or red are present in more than 10% but no more than 30% of the fruits.
- Rose: when rose or red colour are present in more than 30% but less than 60% of the fruit(yellow is not included.
- Red : When more than 60% but no more than 90% of the fruits are rose or red colour.
- Mature red: when more than 90% of the surface of the fruit shows red colour.

TOP

SCHEDULE - XV

GRADE DESIGNATION AND QUALITY OF BANANAS

1.	Bananas shall be obtained from Varieties (cultivars) of Musa. spp. of the Musaceae family.
2.	MINIMUM REQUIREMENTS
(i)	Bananas shall be :
	(a) whole (taking the finger as the reference),
	(b) firm,
	(c) sound,
	(d) clean, free of any visible foreign matter,
	(e) free of bruisings,
	(f) free of pests affecting the general appearance of produce,
	(g) with the stalk intact, without bending, fungal damage or dessication,

(h) with pistils removed,
(i) free of malformation or abnormal curvature of the fingers,
(j) free of damage caused by low temperature,
 (k) free of abnormal external moisture excluding condensation following removal from cold storage and bananas packed under modified atmosphere condition,
(I) free of any foreign smell and/or taste.
(ii) In addition, hands and clusters must include:
 a sufficient portion of the crown of normal colouring, sound and free of fungal contamination,
- a cleanly cut crown, not bevelled or torn, with no stalk fragments.
(iii) Bananas shall comply with the residue levels of heavy metals, Pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.
3. CRITERIA FOR GRADE DESIGNATION:

3.

Grade designation	Grade Requirements	Grade tolerances
1	2	4
Extra class	Bananas shall be of superior quality. They must be characteristics of the variety and/or commercial type. The fingers must be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package.	5% by number or weight of bananas not satisfying the requirements of the grade, but meeting those of for Class I grade or, exceptionally, coming within the tolerances for that class.
Class I	Bananas shall be of good quality. They must be characteristics of the variety and/or commercial type. The following slight defects of the fingers, however, may be allowed, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package. - slight defects in shape and colour; - slight defects due to rubbing and other superficial defects not exceeding 2 sq.cm. of the total surface area. The defects must not affect the flesh of the fruit.	10% number or weight of bananas not satisfying the requirements of the grade class, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.
Class II	This includes bananas which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements. The following defects may be there, provided the bananas retain their essential characteristics as regards the quality, the keeping quality and presentation. - defects in shape and colour provided the product remains the normal characteristics of	10% by number or weight of bananas not satisfying the requirements of the grade, but meeting the minimum requirements.

bananas;	
- skin defects due to scrapping, scabs, rubbing, blemishes or other causes not exceeding 4 sq.cm. of the total surface area;	
The defects must not affect the flesh of the fruit.	

4. OTHER REQUIREMENTS

- (i) The development and condition of the bananas must be such as to enable them:
 - to reach the appropriate stage of physiological maturity corresponding to the particular characteristics of the variety,
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination in order to ripen satisfactorily.
- (ii) Bananas must be presented in hands and clusters (parts of hands) of atleast four fingers. Bananas may also be presented as single finger.
- Clusters with no more than two missing fingers are allowed, provided the stalk is not torn but clearly cut, without damage to the neighboring fingers.
- Not more than one cluster of three fingers with the same characteristics as the other fruit in the package may be present per row.

5.	PROVISIONS CONCERNING SIZING:-
(i)	For the purposes of sizing bananas, the length of the fingers is determined along the outside curve from the blossom end to the base of the pedicel where the edible pulp ends and the diameter is defined as the thickness of a transverse section between the lateral faces. The reference fruit for measurement of the length and grade is:
	 for hands, the median finger on the outer row of the hand, for clusters, the finger next to the cut section of the hand, on the outer row of the cluster.
(ii)	The minimum length should not be less than 14.0 cm and the minimum grade not less than 2.7 cm.
(iii)	For all classes, 10% by number or weight of bananas not satisfying the sizing characteristics, upto a limit of 1 cm for the minimum length of 14 cm.
<u>TC</u>	SCHEDULE - XVI

GRADE DESIGNATION AND QUALITY OF PLUMS

1. Plums shall be fruits obtained from Varieties (cultivars) of Prunus domestica L. and Prunus salicina Lindl.

2. MINIMUM REQUIREMENTS-
(i) Plums shall be
(a) sound, fresh in appearance;
(b) clean, free of any visible foreign matter;
(c) intact;
(d) free from damage caused by pests;
(e) free of abnormal external moisture;
(f) free of any foreign smell and/or taste;
(g) carefully picked.
(ii) They shall comply with the residue level of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.
3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Grade tolerances
1	2	4
Extra class	Plums shall be of superior quality. They must have the shape, development and colouring typical of the variety. They must be - free from defects; - practically covered by bloom, according to the variety; - of firm flesh.	5% by number or weight of Plums not satisfying the requirements of the grade, but meeting those of Class I grade or, exceptionally, coming within the tolerances for that class.
Class I	Plums must be of good quality. They must be characteristics of the variety and/or commercial type. The following slight defects of the fingers, however, may be allowed, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package. - a slight defect in shape, - a slight defect in development; - skin defects of elongated shape that must not exceed in length one-third of the maximum diameter of the fruit; - other skin defect, of which total area affected must not exceed 5% of the whole surface; - the stem may be damaged or missing, provided that there is no risk of the fruit rotting in	10% by number or weight of Plums not satisfying the requirements of the grade, but meeting those of Class II grade or, exceptionally, coming within the tolerances of that grade.

	consequence.	
Class II	Plums which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements.	
	- defects in shape, development and colouring are allowed provided that the plums retain their characteristics.	
	- skin defects not liable to impair the external appearance of the fruits or its keeping quality are allowed provided that they do not exceed 10% of the whole surface.	

4. OTHER REQUIREMENTS:

Plums must be sufficiently developed and display satisfactory ripeness. The development and condition of the Plums must be such as to enable them;

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

5. PROVISIONS CONCERNING SIZING:-

Sizing is determined by the maximum diameter of the equatorial section:

	Large fruit varieties (Min.)(m.r	Other varieties m) (Min.)(m.m)	Mirabelles & damsons varieties(Min.)(m.m)	
Extra class	40	28	20	
Class I	35	28	20	
Class II	30	25	17	

Size tolerance: For all classes, 10% by number or weight deviating from the minimum size or the size stated on the packages the deviation not exceeding 3 mm. above or below.

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SCHEDULE - XVII

GRADE DESIGNATION AND QUALITY OF PAPAYAS

1.	Papayas shall be the fruit obtained from varieties of Carica Papaya L. of the Caricaceae family;
2.	MINIMUM REQUIREMENTS
(i)	Papaya shall be
	(a) whole,
	(b) fresh in appearance,
	(c) firm,
	(d) sound, produce affected by rotting or deterioration, such as to make it unfit for consumption is excluded,
	(e) clean, free of any visible foreign matter,
	(f) free of pests affecting the general appearance of the produce,
	(g) free of damage caused by low and/or high temperature,
	(h) free of abnormal external moisture, excluding condensation following removal from cold storage,
	(i) free of any foreign smell and/or taste,

- (j) the peduncle, if present, should not exceed a length of 1 cm.
- (ii) Papaya shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION

Grade designation	Grade Requirements	Grade tolerances
1	2	4
Extra class	Papayas in this class must be of superior quality. 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.	5% by number or weight of Papayas not satisfying the requirements of the grade, but meeting those of Class I or, exceptionally, coming within the tolerances of that grade.
Class I	Papayas in this class must be of good quality. They must be characteristics of the variety and/or commercial type. The following slight defects may be there, 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,	10% by number or weight of Papayas not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.

	- slight skin defects (i.e. mechanical bruising, sun spots and/or latex burns). The total area affected shall not exceed 10% of the total surface. The defects, must not, in any case, affect the pulp of the fruit.	
Class II	This class includes papayas which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. The following defects may be there, provided the papayas retain their essential characteristics as regards the general appearance, the quality, the keeping quality and presentation.	10% by number or weight of Papayas not satisfying the requirements of the grade but meeting the minimum requirements.
	 defects in shape, defects in colouring, skin defects(i.e. mechanical bruising, sunspots and latex burns). The total area affected should not exceed 15% of the total surface. Slight marks caused by pests. The defects must not affect the pulp of the fruit. 	

4. OTHER REQUIREMENTS

appropriate	as must have been carefice degree of development stics of the variety and/or own.	and ripeness, ac	count being take	
(ii) The develo	ppment and condition of the	ne papayas must	be such as to er	nable
- to	withstand transport and	nandling, and		
- to	arrive in satisfactory con	dition at the place	e of destination.	
5. PROVISION	S CONCERNING SIZING	;		
	ermined by the weight of vith the following table.	the fruit with a mi	nimum weight of	² 200 gm.
			Size Code	Weight
		(in grams)		
	Α	200 - 300		
	В	301 - 400		
	С	401 - 500		

	D	501 - 600	
	Е	601 - 700	
	F	701 - 800	
	G	801 - 1100	
	Н	1101 - 1500	
	1	1501 - 2000	
>2001			J

SIZE TOLERANCES:

For all grades, 10% by number or weight of papayas corresponding to the size immediately above and/or below that indicated on the package, with a

minimum of 190 gm. for those papayas packed in the smallest size range.

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SCHEDULE - XVIII

GRADE DESIGNATION AND QUALITY OF GARLIC

 Garlic shall be obtained from Varieties (cultivars) Allium sativum L. (1) fresh, (2) semidry or (3) dry. 	Γhey may be
2. MINIMUM REQUIREMENTS-	
(i) Garlic bulbs shall be	
(a) sound, fresh in appearance;	
(b) clean, free of any visible foreign matter;	
(c) firm;	
(d) free from damage caused by pests;	
(e) free from damage caused by frost or sun;	
(f) free from externally visible sprouts;	
(g) free of abnormal external moisture;	
(h) free of any foreign smell and/or taste;	

(ii) They shall comply with the residue level of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

Foot note: (1) `Fresh garlic' means produce with a `green' stem and with the outer skin of the bulb still fresh.

- (2) `Semi-dry garlic' means produce with the stem and the outer skin of the bulb not completely dry.
- (3) `Dry garlic' means produce in which the stem, the outer skin of the bulb and the skin surrounding each clove are completely dry.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Grade tolerances
1	2	4
Extra class	Garlic shall be of superior quality. They shall be characteristic of the variety and /or commercial type.	5% by weight of Garlic not satisfying the requirements of the grade, but meeting those of Class I grade or, exceptionally, coming within the tolerances of that grade.
	The bulbs shall be :	
	- intact;	
	- regular in shape;	
	- properly cleaned.	

	They must be free of defects, with the exception of very slight superficial blemishes, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation the package.	
	The cloves must be compact; The roots of dry garlic must be cut off flush with the bulb.	
Class I	Garlic shall be of good quality. They shall be characteristics of the variety and/or commercial type. The bulbs shall be: - intact; - of fairly regular shape 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 tears in the outer skin of the bulb;	10% by weight of Garlic not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.
	cloves must be reasonably compact.	

Class II Garlic which do not qualify for 10% by weight of Garlic inclusion in the higher grade, but not satisfying the requirements of the grade but satisfy the minimum requirements. The following defects may be meeting minimum the allowed, provided the garlic retain requirements. essential characteristics as regards the quality, the keeping quality and presentation. tears in the outer skin or missing parts of the outer skin of the bulb; healed injuries; slight bruises; irregular shape; upto three cloves missing.

4. OTHER REQUIREMENTS:

- (I) The development and condition of the garlic must be such as to enable it to:
 - withstand transport and handling, and
 - arrive in satisfactory condition at the place of destination.
- (II) Garlic must be presented as follows:

(i) loose in the package, with cut stems, the length of the stem not to exceed:
- 10 cm. in the case of fresh and semi-dry garlic,
- 3 cm. in the case of dry garlic;
(ii) in bunches by:
- number of bulbs;
- net weight.
The stems must be evened off;
(iii) in the case of dry and semi-dry garlic only, in strings by:
number of bulbs, there being at lest six bulbs per string;net weight.
In the case of presentation in bunches or strings, each package must have uniform characteristics (number of bulbs or net weight).
Irrespective of the type of presentation, the stems must be cut cleanly, as must roots in the case of dry garlic classified in the `Extra' class.
(III) Package shall be marked `fresh garlic', `semi-dry garlic' or `dry garlic'.

SCHEDULE - XIX
<u>TOP</u>
(III) Garlic bulb without clove may have minimum diameter of 20 mm for Extra class and 15 mm for Class I and Class II.
(II) Size tolerances: For all grades: 10% by weight of bulbs not satisfying the requirements as regards sizing and the size indicated but conforming to the size immediately above and/or below that specifieed. Within this tolerances, not more than 3% of bulbs may have a diameter smaller than the specified minimum but not less than 25 mm.
 - 15 mm where the diameter of the smallest bulb is less than 40 mm; - 20 mm where the diameter of the smallest bulb is 40 mm or more.
(ii) For garlic presented loosee - with cut stems - or in bunches, the difference in diameter between the smallest and the largest bulb in the same package may not exceeed:
(i) The minimum diameter shall be at 45 mm for garlic classified in the `Extra' Class and 30 mm for garlic classified in Classes I and II.
(I) Size is determined by the maximum diameter of the equatorial section.
5. PROVISIONS CONCERNING SIZING:

GRADE DESIGNATION AND QUALITY OF ONIONS

1. Onions shall be obtained from Varieties (cultivars) Allium Cepa L.
2. MINIMUM REQUIREMENTS-
(i) Onion shall be
(a) intact,
(b) sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded,
(c) clean, free from any visible foreign matter,
(d) free from damage caused by frost;
(e) sufficiently dry for the intended use(in the case of onions for storing, at least the two first outer skins and the stem must be fully dried)
(f) without hollow or tough stems;
(g) practically free from pests;
(h) practically free from damage caused by pests;

(i) free of all abnormal external moist	ure;
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(j) free of any foreign smell and/or taste.

The stems must be twisted or clean cut and must not exceed 6 cm in length (except for stringed onions).

(ii) They shall comply with the residue level of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designation	Grade Requirements	Grade tolerances
1	2	4
Extra class	Onion shall be of superior quality. They shall be characteristic of the variety and /or commercial type.	5% by number or weight of onion not satisfying the requirements of the grade, but meeting those of Class I grade or, exceptionally, coming within the tolerances of that grade.
	The bulbs shall be :	
	- firm and compact;	
	- unsprouted (free from externally	

visible shoots); properly cleaned; free from swelling caused by abnormal development; free of root tufts, however, onions harvested before complete maturity, root tufts are allowed. They shall be free of defects, with exception of very slight the superficial blemishes, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. Class I 10% by number or weight of Onion shall be of good quality. onion not satisfying the They shall be characteristics of the requirements of the grade, variety and/or commercial type. those of but meeting Class II grade or, exceptionally, coming within the tolerances of that grade. The bulbs shall be: firm and compact; unsprouted (free from externally visible shoots); free from swelling caused by abnormal development; free of root tufts, however, onions harvested before complete maturity, root tufts are allowed. 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; light staining which does not affect the last dried protecting the flesh, provided it does not cover more than onefifth of the bulb's surface. Superficial cracks in and absence of part of the outer skins, provided the flesh is protected. Class II which do not qualify for Onion 10% by number or weight of inclusion in the higher grade, but onion not satisfying the satisfy the minimum requirements. requirements for the grade They shall be reasonably firm. The but meeting the minimum following defects may be allowed, requirements. provided the onion retain their essential characteristics as regards the quality, the keeping quality and presentation. defects in shape; - defects in colouring; early signs of shoot growth visible from outside (not more than 10% by number or weight per unit of presentation); traces of rubbing; slight marking caused by parasites or disease; small healed cracks: slight bruising, healed, unlikely

to impair keeping qualities; root tufts; stains which do not affect the last dried skin protecting the flesh provided they do not cover more than half the bulb's surface: cracks in the outer skins and the absence of a part of the outerskins from not more than half of the bulbs's surface: cracks in the outer skins and the absence of a part of the outerskins from not more than one-third of the bulb's surface, provided the flesh is not damaged. 4. OTHER REQUIREMENTS: (I) The development and condition of the onion must be such as to enable them to: - withstand transport and handling, and - arrive in satisfactory condition at the place of destination. (II) Onions must be presented as follows:

- arranged in layers;

- loose in the package (including in bulk bins);
- in strings:

either of a certain number of bulbs, in which case the strings must contain at least six onions(with fully dried stems); or of a certain net weight.

For stringed onions, the characteristics of the strings in any one package(number of bulbs or net weight) must be uniform.

5. PROVISIONS CONCERNING SIZING:

(I) Size is determined by the maximum diameter of the equatorial section in accordance with the following table.

Size code	Diameter	Difference betw	een
	(in mm.)	the diameter of the	he
		smallest and larg	jest
		onion in the same	e package
		(in mm.)	
		Α	10-20

В

21-40

15

The minimum diameter is 10mm.	71 and above
The minimum diameter is 10mm.	
(II) Size tolerances: For all grades, 10% by weight of onions no identified, but with a diameter of no more or above it.	ot satisfying the size ore than 20% below
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