

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURE AND CO-OPERATION)

NOTIFICATION

New Delhi, dated the 12th March, 2010

G.S.R186 (E).-- whereas the draft of Fruits and vegetables Grading and Marking (amendment) Rules, 2009 were published amending of Fruits and Vegetables Grading and Marking Rules, 2004 as required by Section 3 of the Agricultural Produce (Grading and Marking) Act, 1937 and published in the Gazette of India, Part II, Section 3, Sub- section (i), dated 12th October, 2009, vide G.S.R. No. 743(E), dated, 7th October, 2009 for inviting suggestions or objections from all persons likely to be affected thereby;

And whereas copies of the said Gazette were made available to the public on 15.10.2009;

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 Citrus Fruits Grading and Marking Rule, 1949, (2) The Table Potato Grading and Marking Rules, 1950, (3) The Table Potato (for export) Grading and Marking Rules, 1964, (4) The Walnut Grading and Marking Rules, 1966 (5) The Oranges (for export) Grading and Marking Rules, 1983, the Central Government hereby makes the following rules, namely :-

Rules

1.(1)These rules may be called the Fruits and Vegetables Grading and Marking (Amendment) Rules, 2010.

(2)They shall come into force on the date of their publication in the Official Gazette.

2.In the Fruits and Vegetables Grading and Marking Rules, 2004,-

(a) in rule 4, for the words and letters “Schedule II to XXXIII”, the words and letters “Schedule II to XLII” shall be substituted.

(b) after Schedule “XXXIII”, the following Schedules shall be inserted namely:

SCHEDULE- XXXIV GRADE DESIGNATION AND QUALITY OF ORANGES

1. Oranges (Mosambi) shall be obtained from varieties (cultivars) of *Citrus sinensis* (L).
Osbeck of the *Rutaceae* family.

2. **MINIMUM REQUIREMENTS:**

A. Quality requirements:

(i) Oranges (Mosambi) shall be:-

- (a) fresh in appearance;
- (b) whole, with characteristic shape of the variety;
- (c) sound;
- (d) clean, free of any visible foreign matter;
- (e) free of damage caused by low temperature or high temperature;
- (f) free of damage caused by frost;
- (g) free from damage caused by pests or diseases;
- (h) free from sunburn affecting the general appearance of the produce;
- (i) free from abnormal external moisture, excluding condensation following removal from Cold storage;
- (j) free of any foreign smell or taste;
- (k) free of signs of internal shriveling or drying;
- (l) free of bruising and/or extensive healed over cuts.

(ii) The stalk shall be removed close to the fruit keeping the button intact.

(iii) 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.

(iv) Oranges shall have minimum diameter of 53 mm.

B. Maturity requirements:

I. Colouring:

- (a) The degree of colouring shall be such that, following normal development, the oranges reach their normal variety colour at their destination point, account being taken of the time of picking the growing area and the duration of transport.
- (b) Colouring must be typical of the variety. Fruit with a light green colour are allowed, provided it does not exceed one fifth of the total surface area of the fruit.
- (c) Oranges produced in areas with high air temperatures and high relative humidity conditions during the developing period can be of green colour exceeding one fifth of the total surface area, provided they satisfy the criteria mentioned in II, III and IV.

II. Minimum Juice content:

Minimum juice content, calculated in relation to the total weight of the fruit and after extraction of the juice by means of a hand press.

- | | | |
|---|---|------|
| (a) Blood oranges | : | 30 % |
| (b) Navels group | : | 33 % |
| (c) Other varieties | : | 35 % |
| (d) Varieties with more than one fifth green colour | : | 40 % |

III. Minimum Total soluble solids content:

T.S.S. – 10 degree Brix.

IV. Minimum Total soluble solids: Acid ratio:

TSS : Acid ratio in juice - 12 : 1

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra class	<p>Oranges shall be of superior quality. They shall be characteristic of the variety and/or commercial type in shape, external appearance, development and colouring. 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;</p> <ul style="list-style-type: none"> - shall be uniform in colour; - shall have minimum diameter of 70 mm. 	<p>5 % by number or weight of Oranges not satisfying the requirements of the grade, but meeting those of Class I grade or, exceptionally, coming within the tolerances of that grade.</p>
Class I	<p>Oranges shall be of good quality. They must be characteristic of the variety or commercial type (in shape, external appearance, development and colouring). 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;</p> <ul style="list-style-type: none"> - slight defects in colouring, - slight defects in shape, - slight skin defects occurring during the formation of the fruit, such as silver scurf, russeting etc., - slight healed defects due to mechanical cause such as hail damage, rubbing, damage from handling. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	<p>10 % by number or weight of Oranges not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.</p>
Class II	<p>This grade includes Oranges which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided the Oranges retain their essential characteristics as regards the quality, the keeping quality and presentation in the package.</p> <ul style="list-style-type: none"> - defects in shape; <ul style="list-style-type: none"> - defects in colouring; - skin defects occurring during the formation of the fruit, such as silver scruffs, russeting etc.; - skin defects, healed defects due to mechanical cause such as hail damage, rubbing, damage from handling; - superficial healed skin alteration; - rough skin; <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	<p>10 % by number or weight of Oranges not satisfying the requirements of the grade, but meeting the minimum requirements. Within this tolerance, a maximum of 5 % may be fruits showing slight superficial unhealed damage, dry cuts or soft and shrivelled fruit.</p>

4. OTHER REQUIREMENTS:

- (i) The oranges shall have been carefully picked and have reached an appropriate degree of development and display satisfactory ripeness in accordance with criteria proper to the variety and to 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.
- (ii) The content of each package must be uniform and contain only oranges of the same origin, variety, quality, size, same degree of ripeness and development.
- (iii) The use of any substance tending to modify the natural characteristics of the oranges, especially its taste or smell is prohibited.
- (iv) The oranges shall be presented :
 - (a) Arranged in regular layers in packages. It is mandatory for “Extra Class” and optional for Class I and II.
 - (b) Not arranged in regular layers in packages or in bulk bins. This presentation is only allowed for Classes I and II.

5. PROVISION CONCERNING SIZING:

- A. Size is determined by the maximum diameter of the equatorial section of the fruit in accordance with the following table.

Size code	Diameter(mm.)
A	53-60
B	61-68
C	69-76
D	77-84
E	85-92
F	93-100
G	Above 100

B. SIZE TOLERANCES:

- (i) For all classes, 10 % by number of oranges corresponding to the size immediately below and/or above that mentioned on the packages, provided the maximum difference between the smallest and largest fruits does not exceed the following maximum.

Size Code	Maximum difference between fruit in the same package in mm
A,B,C and D	7mm
E,F and G	10mm

- (ii) 10 % tolerance only applies to fruit whose diameter is not less than 53 mm.

SCHEDULE -XXXV
GRADE DESIGNATION AND QUALITY OF MANDARINS

1. Mandarins shall be obtained from varieties (cultivars) of Mandarins, tangerines and their hybrids grown from species of *Citrus reticulata* Blanco including Satsumas (*Citrus unshiu* Marcow), Clementines (*Citrus clementina* Hort. ex. Tan.), Common mandarins (*Citrus deliciosa* Tan.) and tangerines (*Citrus tangerina* Hort. ex. Tan.) grown from these species and their hybrids including “Kinnow” (*Citrus nobilis* x *Citrus deliciosa*) of the *Rutaceae* family.

2. **MINIMUM REQUIREMENTS:**

A. Quality requirements:

- (i) Mandarins shall be:-
 - (a) firm;
 - (b) whole, undamaged;
 - (c) fresh in appearance;
 - (d) sound, with characteristic shape of the variety;
 - (e) clean, free of any visible foreign matter;
 - (f) free of damage caused by low temperature or high temperature;
 - (g) free of damage caused by frost;
 - (h) free from damage caused by pests or diseases;
 - (i) free from abnormal external moisture, excluding condensation following removal from Cold storage;
 - (j) free of any foreign smell and/or taste;
 - (k) free of signs of internal shriveling;
 - (l) free of bruising and/or extensive healed over cuts.
- (ii) The stalk shall be removed close to the fruit keeping the button intact.
- (iii) 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.
- (iv) Mandarins shall have minimum diameter of 54 mm.

B. Maturity requirements:

I. Colouring:

- (a) Colouring shall be typical of the variety on at least one fifth of the surface of the fruit.
- (b) Mandarins produced in areas with high air temperature and high relative humidity conditions during the development period can be of a light green colour exceeding four fifth of the total surface area, provided they satisfy the criteria mentioned in II, III and IV.

II. Minimum Juice content:

Juice content is calculated in relation to the total weight of the fruit and after extraction of the juice by means of a hand press.

- (a) Clementines and Tangerines 35 %
- (b) Varieties “Nagpur”
& “Coorg” with four fifth
of the surface green 35 %
- (c) “Khasi” Mandarins 35 %
- (d) “Kinnow” hybrid 40 %
- (e) Satsumas 33 %
Other mandarin varieties
and their hybrids

III. Minimum Total soluble solids Content:

T.S.S. - minimum 10 degree Brix.

IV. Minimum Total soluble solids: acid ratio.

TSS: Acid ratio in juice- 12: 1

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra class	Mandarins shall be of superior quality. They shall be characteristic of the variety and/or commercial type in shape, external appearance, development and colouring. 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. Mandarins must be uniform in colour.	5 % by number or weight of Mandarins 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	Mandarins shall be of good quality. They shall be characteristic of the variety and/or commercial type. 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.- <ul style="list-style-type: none"> - slight defects in shape, - slight defects in colouring, - slight skin defects occurring during the formation of the fruit, such as silver scurf, russets etc., - slight healed defects due to mechanical cause such as hail damage, rubbing; 	10 % by number or weight of Mandarins not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.

	<p>- damage from handling.</p> <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	
Class II	<p>This grade includes Mandarins which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided Mandarins retain their essential characteristics as regards the quality, the keeping quality and presentation in the package.</p> <ul style="list-style-type: none"> - defects in shape, - defects in colouring, - slight skin defects occurring during the formation of the fruit, such as silver scurf, russets etc., - skin healed defects due to mechanical cause such as hail damage, rubbing, - damage from handling, <p>Slight puffing of fruit is allowed.</p> <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	<p>10 % by number or weight of Mandarins not satisfying the requirements of the grade, but meeting the minimum requirements. With in this tolerance, a maximum of 5 % may be fruits showing slight superficial unhealed damage, dry cuts or soft and shriveled fruit.</p>

4. OTHER REQUIREMENTS:

- (i) The Mandarins shall have been carefully picked and have reached an appropriate degree of development and display satisfactory ripeness in accordance with criteria proper to the variety and to the area in which they are grown. The development and condition of the Mandarins must be such as to enable them;
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) The content of each package shall be uniform and contain only Mandarins of the same origin, variety, quality, size, same degree of ripeness and development.
- (iii) The use of any substance tending to modify the natural characteristics of the Mandarins, especially its taste or smell is prohibited.
- (iv) The Mandarins shall be presented :
 - i. Arranged in regular layers in packages. It is mandatory for "Extra Class" and optional for Class I and II.
 - ii. Not arranged in regular layers in packages. This presentation is only allowed for Class I and II.

5. PROVISION CONCERNING SIZING:

- A. Size is determined by the maximum diameter of the equatorial section of the fruit in accordance with the following table.

Size scales:

Size Code	Diameter in mm.
A	54-61
B	62-69
C	70-77
D	78-85
E	Above 85

B. SIZE TOLERANCES:

- (i) For all classes and types of presentation : 10 % by number or weight of Mandarins corresponding to the size immediately below and/or above that mentioned on the packages, provided the maximum difference between the smallest and largest fruits does not exceed the following maxima.

Size code	Maximum difference between fruit in the same package in mm
A,B,C and D	7 mm
E	10mm

- (ii) In any case, the tolerance of 10 % applies only to fruit whose diameter is not less than 54 mm.

SCHEDULE- XXXVI GRADE DESIGNATION AND QUALITY OF LIMES

1. Limes shall be obtained from varieties (cultivars) of *Citrus aurantifolia Swingle*, a small fruited acid lime known as “key” lime , ‘Maxican’ lime , ‘Kagzi’ lime and its hybrid of the *Rutaceae* family.

2. MINIMUM REQUIREMENTS:

A. Quality requirements:

- (i) Limes shall be:-
- (a) whole;
 - (b) firm;
 - (c) intact;
 - (d) sound, with characteristic shape of the variety;
 - (e) clean, free of any visible foreign matter;
 - (f) fresh in appearance;
 - (g) free from bruising;
 - (h) free from pests affecting the general appearance of the produce;
 - (i) free from abnormal external moisture, excluding condensation following removal from cold storage;
 - (j) free from any foreign smell and/or taste;
 - (k) free from signs of internal shriveling;

- (l) free from damage caused by low temperature and/or high temperature or frost;
 - (m) free from bruising and/or extensive healed over cuts.
- (ii) 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.
- (iii) Limes shall have a minimum diameter of 33 mm.

B. Maturity requirements:

I. Colouring:

Limes shall have colouring typical of the variety on at least two thirds of the total fruit surface. No lime fruit shall be entirely dark green.

II. Minimum Juice content:

Juice content is calculated in relation to the total weight of the fruit.

Minimum juice content : 40 %

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra class	Limes shall be of superior quality. They shall be characteristic of the variety and/or commercial type in shape, external appearance, development and coloring. 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. Limes shall be uniform in color and shall have the minimum diameter of 42 mm.	5 % by number or weight of limes 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	Limes shall be of good quality. They must be characteristics of the variety and/or commercial type. Following slight defects may be there, provided the limes retain their essential characteristics as regards the quality, the keeping quality and presentation in the package. <ul style="list-style-type: none"> - slight defects in shape, - slight defects in coloring, - slight skin defects not more than 1 sq. cm. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	10 % by number or weight of limes not satisfying the requirements of the grade, but meeting those of Class II, or exceptionally, coming within the tolerances of that grade.

Class II	<p>This grade includes limes which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Limes must meet the minimum requirements and minimum maturity requirements. Following defects may be there, provided the limes retain their essential characteristics as regards the quality, the keeping quality and presentation in the package;</p> <ul style="list-style-type: none"> - defects in shape, - defects in coloring, - skin defects not more than 2 sq.cm., - healed defects due to mechanical cause such as hail damage, rubbing <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	10 % by number or weight of limes not satisfying the requirements of the grade, but meeting the minimum requirements.
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4. OTHER REQUIREMENTS:

- (i) The limes shall have been carefully picked and have reached an appropriate degree of development and display satisfactory ripeness in accordance with criteria proper to the variety and to the area in which they are grown. The development and condition of the Limes must be such as to enable them;
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) The content of each package shall be uniform and contain only limes of the same origin, variety, quality, size code, same degree of ripeness and development.
- (iii) The use of any substance tending to modify the natural characteristics of the limes, especially its taste or smell is prohibited.
- (iv) The limes shall be presented :
 - (a) Arranged in regular layers in packages; it is mandatory for "Extra Class" and optional for Class I and II.
 - (b) Not arranged in regular layers in packages or in bulk bins. This presentation is only allowed for Class I and II.

5. PROVISION CONCERNING SIZING:

- A. Size is determined by the maximum diameter of the equatorial section of the fruit in accordance with the following table.

Size code	Diameter (mm.)
A	33-37
B	38-42
C	43-47
D	48-52

E	53 and above
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B. SIZE TOLERANCES:

For all classes, 10 % by number or weight of limes corresponding to the size immediately below and/or above that mentioned on the packages. In any case, the tolerance of 10 % applies only to fruit not smaller than the minimum of 33 mm.

**SCHEDULE- XXXVII
GRADE DESIGNATION AND QUALITY OF LEMONS**

1. Lemons shall be the fruits obtained from varieties (cultivars) of *Citrus Limon* (L). *Burm f.* and its hybrid of the *Rutaceae* family.

2. MINIMUM REQUIREMENTS:

A. Quality requirements

- (i) Lemons shall be:-
 - (a) Whole;
 - (b) firm;
 - (c) intact;
 - (d) fresh in appearance;
 - (e) sound with characteristics shape of the variety;
 - (f) clean, free from any visible foreign matter;
 - (g) free from bruising and/or extensive healed over cuts;
 - (h) free from damage caused by pest or diseases;
 - (i) free from abnormal external moisture, excluding condensation following removal from cold storage;
 - (j) free from any foreign smell and/or taste;
 - (k) free from signs of internal shriveling;
 - (l) free from damage caused by low temperature and/or high temperature or frost.
- (ii) 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.
- (iii) Lemons shall have minimum diameter of 45 mm.

B. Maturity requirements:

I. Colouring:

Colouring must be typical of the variety. No lemon fruit shall be entirely dark green. The fruit should be light green and shining.

II. Minimum Juice content:

The juice content is calculated in relation to the total weight of the fruit.

Minimum Juice Content : 25 %

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra Class	Lemons shall be of superior quality. They shall be characteristic of the variety and/or commercial type in shape, external appearance, development and colouring. 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. Lemons must be uniform in colouring.	5 % by number or weight of lemons 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	Lemons shall be of good quality. They shall be characteristic of the variety and/or commercial type. 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. Lemons may have the following defects. <ul style="list-style-type: none"> - slight defects in shape, - slight defects in colouring, - slight skin defects not exceeding 1sq. cm. <p>The defects must not, in any case, affect the pulp of the fruit.</p>	10 % by number or weight of lemons not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.
Class II	This grade includes lemons which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided the lemons retain their essential characteristics as regards the quality, the keeping quality and presentation in the package; <ul style="list-style-type: none"> - defects in shape, - defects in colouring, - Skin defects not exceeding 2 sq.cm. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	10 % by number or weight of lemons not satisfying the requirements of the grade, but meeting the minimum requirements.

4. OTHER REQUIREMENTS:

- (i) The lemons shall have been carefully picked and have reached an appropriate degree of development and display satisfactory ripeness in accordance with criteria proper to the variety and to the area in which they are grown. The development and condition of the lemons must be such as to enable them;
- to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.

- (ii) The content of each package shall be uniform and contain only lemons of the same origin, variety, quality, size code, same degree of ripeness and development.
- (iii) The use of any substance tending to modify the natural characteristics of the lemons, especially its taste or smell is prohibited.
- (iv) The lemons shall be presented :
 - (a) Arranged in regular layers in packages. It is mandatory for "Extra Class" and optional for Class I and II.
 - (b) Not arranged in regular layers in packages or in bulk bins. This presentation is only allowed for Classes I and II.

5. PROVISION CONCERNING SIZING:

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

Size code	Diameter (mm.)
A	45-50
B	51-56
C	57-62
D	63-68
E	69-74
F	75 and above

(B). SIZE TOLERANCES:

For all classes, 10 % by number or weight of lemons corresponding to the size immediately below and/or above that mentioned on the packages. In any case, the tolerance of 10 % applies only to fruit not smaller than the minimum of 45 mm.

SCHEDULE- XXXVIII
GRADE DESIGNATION AND QUALITY OF GRAPEFRUITS

1. Grapefruits shall be the fruits obtained from varieties (cultivars) of *Citrus paradisi Macfad* of the *Rutaceae* family.

2. MINIMUM REQUIREMENTS:

A. Quality requirements:

- (i) Grapefruits shall be:-
 - (a) intact;
 - (b) firm;
 - (c) fresh in appearance;
 - (d) sound, with characteristic shape of the variety;

- (e) clean, free from any visible foreign matter;
 - (f) free from damage caused by low temperature and/or high temperature;
 - (g) free from damage caused by frost;
 - (h) free from damage caused by pests or diseases and sunburn affecting the general appearance of the produce;
 - (i) free from abnormal external moisture, excluding condensation following removal from Cold storage;
 - (j) free from any foreign smell and/or taste;
 - (k) free from signs of internal shriveling/drying;
 - (l) free from bruising and/or extensive healed over cuts.
- (ii) 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.
- (iii) Grapefruits shall have minimum diameter of 70 mm.

B. Maturity requirements

I. Colouring

Colouring must be typical or characteristic of the variety. However, fruits of light greenish colour with colour break are allowed provided they comply with the minimum requirements. Red-pulp varieties may have reddish patches on the rind.

II. Minimum Juice content:

Juice content is calculated in relation to the total weight of the fruit.

Minimum Juice Content : 33 %

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra Class	Grapefruits shall be of superior quality They shall be characteristic of the variety and/or commercial type in shape, external appearance, development and colouring. They shall be free of defects. Fruits must be uniform in colour.	5 % by number or weight of Grape fruits 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	Grapefruits shall be of good quality. They shall be characteristic of the variety and/or commercial type. Fruits must meet minimum requirement and maturity criteria. 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; <ul style="list-style-type: none"> - slight defects in colouring, - slight defects in shape, 	10 % by number or weight of Grapefruits not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade. Within this tolerance, a maximum of 5 % fruits may show slight superficial unhealed damage, dry cuts or soft and shriveled fruit.

	<ul style="list-style-type: none"> - slight skin defects occurring during the formation of the fruit, - slight healed skin defects due to mechanical causes such as hail damage, rubbing, damage from handling, - slight skin discolouration not more than one tenth of the surface. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	
Class II	<p>This grade includes Grapefruits which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided the grape fruits retain their essential characteristics as regards the quality, the keeping quality and presentation in the package.</p> <ul style="list-style-type: none"> - defects in shape, - defects in colouring, - skin defects occurring during the formation of the fruit, such as silver scruffs, russetings etc., - skin defects, healed defects due to mechanical causes such as hail damage, rubbing, damage from handling, - superficial healed skin alteration, - skin discolouration not more than one fifth of the surface. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	<p>10 % by number or weight of Grapefruits 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. Within this tolerance, a maximum of 5 % fruits may show slight superficial unhealed damage, dry cuts or soft and shriveled fruits.</p>

4. OTHER REQUIREMENTS:

- (i) The Grapefruits shall have been carefully picked and have reached an appropriate degree of development and display satisfactory ripeness in accordance with criteria proper to the variety and to the area in which they are grown. The development and condition of the Grape fruits shall be such as to enable them;
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) The content of each package must be uniform and contain only Grapefruits of the same origin, variety, quality, size code, same degree of ripeness and development.
- (iii) The use of any substance tending to modify the natural characteristics of the grape fruits, especially its taste or smell is prohibited.
- (iv) The grapefruits shall be presented as follows;

- (a) Arranged in regular layers in packages. It is mandatory for “Extra Class” and optional for Class I and II.
- (b) Not arranged in packages. This type of presentation is only allowed for Classes I and II.

5. PROVISION CONCERNING SIZING:

A. Size is determined by the maximum diameter of the equatorial section of the fruit in accordance with the following table.

Size code	Diameter (mm.)
A	71-80
B	81-90
C	91-100
D	101-110
E	111-120
F	121-130
G	131 and above

B. SIZE TOLERANCES:

- (i) For all classes and types of presentation: 10 % by number or weight of Grape fruits corresponding to the size immediately below and/or above that mentioned on the packages provided the maximum difference between the small and largest fruit does not exceed the following maxima:

Size code	Maximum difference between fruit in the following maxima
A,B,C &D	7 mm
E,F &G	10 mm

- (ii) In case of bulk consignments, 10 % only applies to Grapefruits with a diameter of not less than 70 mm.

SCHEDULE- XXXIX

GRADE DESIGNATION AND QUALITY OF WARE POTATO

1. WarePotatoes shall be obtained from varieties (cultivars) *Solanum tuberosum*.

2. MINIMUM REQUIREMENTS:

- (i) Ware Potatoes shall be:-
 - (a) firm, clean and fresh in appearance;
 - (b) free from dirt , mud or any visible foreign matter;

- (c) free from insects, pests and worm affecting the general appearance of the produce;
 - (d) free from abnormal external moisture;
 - (e) free from any foreign smell and/or taste;
 - (f) free from damage caused by low or high temperature;
 - (g) free from internal blackening;
 - (h) free from slug holes penetrating into the flesh;
 - (i) free from sprouting;
 - (j) free from scab, soft rot and wet breakdown.
- (ii) WarePotatoes shall not be very soft, shrivelled or water soaked.
- (iii) They shall comply with the residue levels of heavy metals, pesticides and other food safety parameters as laid down by the Codex Alimentarius Commission or importing countries requirement for exports.

3. CRITERIA FOR GRADE DESIGNATION:

Grade designations	Grade requirements	Grade tolerances
1	2	3
Extra Class	Ware Potatoes shall be of superior quality. They must be well developed and have all the characteristics and colouring typical of the variety. These shall be free from defects including bruises, cuts russet scab , rhizoctonia, green colorations and practically free from soil.	5 % by number or weight of WarePotatoes 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	Ware Potatoes shall be of good quality. They must be characteristics of the variety. Following 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. <ul style="list-style-type: none"> - slight defects in shape and colour; - slight skin defects (i.e. scratches, scars, scrapes and blemishes) not exceeding 5% of the total surface area. They shall be free from green colour. - The soil and extraneous matter should not exceed 0.25%. - Greening shall not be on more than 1% by number and should not cover more than 10 % of the surface area. The defects shall not affect the pulp of fruit	10 % by number or weight of Ware Potatoes not satisfying the requirements of the grade, but meeting those of Class II or, exceptionally, coming within the tolerances of that grade.
Class II	This grade includes Ware Potatoes which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects may be there, provided the Ware Potatoes retain their	10 % by number or weight of Ware Potatoes not meeting the requirements of the

	<p>essential characteristics as regards the general appearance, quality, the keeping quality and presentation.</p> <ul style="list-style-type: none"> - defects in shape and colour, - skin defects (i.e. scratches, scars, scrapes bruises and blemishes) not exceeding 10% of the total surface area. - The soil and extraneous matter shall not exceed 0.5%. - Greening should not be on more than 1% by number and should not cover more than 12.5 % of the surface area <p>The defects shall not affect the pulp of fruit.</p>	grade but meeting the minimum requirements.
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4. OTHER REQUIREMENTS :

- (i) Ware Potatoes shall have been carefully picked and have reached an appropriate degree of development and displayed satisfactory maturity in accordance with criteria proper to the variety and to the area in which they are grown. The development and condition of the potato must be such as to enable them;
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) "Ware Potatoes shall be stored at 2-3 degree centigrade and more than 85% relative humidity or at 10-12 degree centigrade and more than 85% relative humidity or at 10-12 degree centigrade and above 80% relative humidity, if treated, with sprout suppressant chemicals as prescribed from time to time.
- (iii) It shall be marked on the package:
 - Oval or
 - Round or
 - Long

5. PROVISIONS CONCERNING SIZING:

- (i) Size is determined by the equatorial diameter of Ware Potato.
- (ii) The equator means the greatest dimension at right angle to the longitudinal axis with regards to the position of the stem end.

Size Code	Equatorial diameter in mm.
A	18.1-28.0
B	28.1-45.0
C	45.1-65.0

D	65.1-80.0
E	more than 80

Note: The size code 'A' shall be marked as 'Baby Potato'.

(iii) **SIZE TOLERANCES:** For all grades, 10 % by number of Ware Potato not conforming the size range specified.

SCHEDULE- XL

GRADE DESIGNATION AND QUALITY OF WALNUT IN SHELL

1. Walnuts in shell shall be the fruit obtained from varieties (cultivars) of plant *Juglans regia* (L)

Walnuts in shell are of two types namely:-

- (i) "Fresh Walnuts" or "Early Walnuts" are walnuts which are marketed soon after harvesting and cannot be preserved for a long time, from which the husk has been removed and which have not been treated in anyway that tends to change their natural moisture content.
- (ii) "Dry Walnuts" means walnuts which can be preserved for a long time under normal conditions of storage.

2. MINIMUM REQUIREMENTS:

A. Walnuts In shell :

- (i) Walnuts in shell shall be:
 - (a) intact, shall not be split or perforated; slight superficial damage is not considered a defect; partially open walnuts are considered to be intact provided that the kernel is physically protected;
 - (b) sound;
 - (c) well matured;
 - (d) clean, practically free of any visible foreign matter;
 - (e) dry, free of abnormal external moisture;
 - (f) free from residues of husk;
 - (g) free from damage caused by pests;
 - (h) free from oil stains, sunburns and residue of chemical bleaching;
- (ii) They shall not be empty and stony.

B. Kernels:

- (i) Kernels shall be .-
 - (a) firm;
 - (b) normally developed, shriveled kernels are to be excluded;
 - (c) clean, practically free of any visible foreign matter;
 - (d) free from living insects, mites or other parasites;
 - (e) free of damage caused by pests;
 - (f) free from rancidity or oily appearance;
 - (g) free from visible mould;
 - (h) free of abnormal external moisture;

- (i) free of foreign smell or taste;
- (j) free from darkening, oil seepage or rancidity .

C. Kernels shall comply with the requirements of residue levels of heavy metals, pesticides & other contaminants and other food safety parameters as laid down by the Codex Alimentarius Commission for exports.

D. The moisture content for fresh walnuts shall be 20 % and above. Moisture content of dry walnuts in shell shall not be more than 12 % and not more than 8% for the kernels.

3 . CRITERIA FOR GRADE DESIGNATION:

Grade Designation	Grade requirements	Grade tolerances
Extra Class	Walnuts in shell shall be of superior quality. They must have the characteristic of a variety and/or commercial type. They must be uniform in size, colour and development. 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. The walnuts in shell shall be of current year crop only.	(a) Tolerance of 10% by number or weight of defects of the shell. (b) Tolerance of 10% by number or weight of defects of edible part of which rotten or damaged by insects not to exceed 3% and mould walnuts not to exceed 3%. For fresh walnuts, the tolerance for defects of the Kernel shall not be more than 8%.
Class I	Walnuts in this class must be of good quality. They must have the characteristics of the variety and/ or commercial type or of a mixture of varieties. They must be uniform in size, colour and development. They may have following defects provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.- Defects of shell i.e. staining, discoloration not exceeding 5% of the total surface area of the shell; - Defects of shell i.e. staining, discoloration not exceeding 5% of the total surface area of the shell; - Adhering dirt, not exceeding 2% of the shell surface. The walnuts in shell shall be of current year crop only.	(a)Tolerance of 15 %by number or weight of defects of the shell. (b) Tolerance of 12% by number or weight of defects of edible part of which rotten or damaged by insects not to exceed 6% and mould walnuts not to exceed 4%. For fresh walnuts, the tolerance for defects of the kernel shall not be more than 12%.
Class II	This grade includes Walnuts in shells which do not qualify for inclusion in Extra class and Class I, but satisfy the minimum requirements. They shall be uniform in colour, size and development. They may have following defects, provided the walnuts retain their essential characteristics as regards the general appearance, quality, the keeping quality	(a) Tolerance of 20% by number or weight of defects of the shell. (b) Tolerance of 15% by number or weight of defects of edible part of which rotten or damaged by

	and presentation in the package; -Defects of shell i.e. staining, discoloration not exceeding 10% of the total surface area of the shell. -Adhering dirt, not exceeding 5% of the shell surface. -Decaying of kernel not exceeding 4% of the total surface area. -Visible damage of the kernel not exceeding 5 % of the total surface.	insects not to exceed 8% and mould walnuts not to exceed 6%. For fresh walnuts, the tolerance for defects of the kernel shall not be more than 15%.
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4. OTHER REQUIREMENTS:

- (i) The Walnuts in shell shall have been carefully picked and have reached an appropriate degree of development and ripeness in accordance with the criteria appropriate to the variety and to the area in which they are grown. The development and condition of the Walnuts shall be such as to enable them;
 - to withstand transport and handling, and
 - to arrive in satisfactory condition at the place of destination.
- (ii) The shells may be washed and bleached provided that the treatment applied does not affect the quality of the kernels.
- (iii) The visible part of the contents of the package, if any, must be representative of the entire contents.
- (iv) Walnuts in shell must be packed in such a way as to protect the produce properly.
- (v) The materials used inside the package shall be clean and of a quality such as to avoid causing any external or internal damage to the produce.

5. PROVISIONS CONCERNING SIZING

A. Size is determined by the minimum diameter of the Walnut.

Size Code	Minimum diameter of the Walnut
A	32 mm. and above
B	30 mm and above
C	28 mm and above
D	26 mm and above
E	24 mm and above

Extra Class and Class I shall not be graded in Size Code E.

B. Size tolerances: 10% by number of walnuts in shell not conforming to the size mentioned on the package.

SCHEDULE XLI

GRADE DESIGNATION AND QUALITY OF SHELLED WALNUT

1. Shelled Walnuts shall be the edible kernels of walnuts obtained from varieties of *Juglans regia*(L).
2. **MINIMUM REQUIREMENTS:**
 - (i) Shelled Walnuts shall be .-
 - (a) Sufficiently dry to ensure keeping quality;
 - (b) Sound, produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded;
 - (c) fresh in appearance;
 - (d) clean, practically free of any visible foreign matter;
 - (e) free of damage caused by low and/or high temperature;
 - (f) free of external moisture, excluding condensation following removal from cold storage;
 - (g) free of any foreign smell and/or taste;
 - (h) free from walnut-meal or flour;
 - (i) free from residue of husk;
 - (j) free of damage caused by pests;
 - (k) free from oily appearance and/or rancidity;
 - (l) edible and having characteristic taste and aroma.
 - (ii) Shelled walnuts shall not be ;
 - (a) Diseased, mouldy or shriveled.
 - (b) worm- eaten.
 - (iii) Acid Insoluble Ash shall not be more than 0.1%.
 - (iv) Moisture content not to exceed 5 %.
 - (v) Shelled Walnuts shall comply with the residue levels of heavy metals, pesticides & other contaminants 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 tolerance
1	2	3
Extra class	<p>Shelled Walnuts shall be of superior quality. They must be characteristic of the variety and/or commercial type. They shall not have any defect and must be uniform in size and colour.</p> <p>Scuffing is allowed on:</p> <ul style="list-style-type: none"> - quarters and all pieces, - halves, provided it covers no more than 10% of the surface area of the skin. <p>They shall have light cream or light golden colour.</p>	<p>4 % by weight of Shelled Walnuts not satisfying the minimum requirements of which shell fragments or foreign matter shall not exceed 0.1%, rotten kernels shall not exceed 0.5 % and mouldy kernels shall not exceed 0.5%.</p> <p>Tolerance of 8 %by weight for kernels darker in colour.</p>
Class I	<p>Shelled Walnuts shall be of good quality. They must be characteristic of the variety and/or commercial type. They must be uniform in size and colour. They may have slight defects of sunburns, blackened kernels not exceeding 4 % of the total surface area.</p> <p>Scuffing is allowed on:</p> <ul style="list-style-type: none"> - quarters and all pieces, - halves, provided it covers no more than 20% of the surface area of the skin. <p>They shall have light cream, light golden or light amber colour .</p>	<p>6 % by weight of Shelled Walnuts not satisfying the minimum requirements of which shell fragments or foreign matter shall not exceed 0.1%, rotten kernels shall not exceed 1 % and mouldy kernels shall not exceed 1%.</p> <p>Tolerance of 9% by weight for kernels darker in colour.</p>
Class II	<p>This grade includes Shelled Walnuts which do not qualify for inclusion in Extra Class and Class 1, but satisfy the minimum requirements. They shall be uniform in size and colour. They may have defects of sunburns, blackened kernels not exceeding 8 % of the total surface area.</p> <p>(Scuffing is not considered as a defect.)</p> <p>This class includes mixtures of kernels of different colours and designated in the marking by the words mixed colours.</p>	<p>8 % by weight of walnut not satisfying the minimum requirements of which shell fragments or foreign matter shall not exceed 0.1%, rotten kernels shall not exceed 2 % and mouldy kernels shall not exceed 2%.</p> <p>Tolerance of 10% by weight for kernels darker in colour.</p>

	They shall have light cream, light golden, light amber or brown colour.	
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4. OTHER REQUIREMENTS:

- (i) Shelled Walnuts shall be obtained from walnuts that have reached an appropriate degree of development and ripeness in accordance with the criteria appropriate to the variety and to the area in which they are grown. The development and condition of the Shelled Walnuts shall be such as to enable them:
 - to withstand transport and handling;
 - to arrive in satisfactory condition at the place of destination.
- (ii) The visible part, if any, of the contents of the package must be representative of the entire contents.
- (iii) Shelled Walnuts shall be packed in such a way as to protect the produce properly.
- (iv) If wooden packaging is used, the produce must be separated from the bottom, sides and lid by paper or suitable protective material.
- (v) The materials used inside the package must be new, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed provided the printing or labeling has been done with non-toxic ink or glue.
- (vi) Shelled Walnuts shall be packed in air tight sealed containers in vacuum or in an inert gas.
- (vii) Each package shall be marked as.-
 - halves,
 - or quarters
 - or large pieces
 - or small/broken pieces
 - or crumbs
 - or combination
- (viii) Shelled Walnuts may be presented:
 - in small unit packages of uniform weight intended for sale directly to the consumer.
 - Packaged in bulk.
- (ix) Uniformity of colour is compulsory for Extra Class and Class I.

- (x) However, with regard to shape, **halves** which pass through 15 mm mesh and **chipped kernels** may be included without limitation in the consignments of **Large pieces**.

5. PROVISIONS CONCERNING SIZING

A. Walnut shelled are classified by style/sizing as follows:

- (i) **halves:** Kernels separated into two more or less equal and intact parts; i.e. undamaged separate cotyledons of fully developed kernels.
- (ii) **quarters:** half of a cotyledon including chipped kernels.
- (iii) **large pieces:** portions smaller than a “chipped kernel*” but larger than a “broken piece”;
- (iv) **small/broken pieces :** portion of kernels which can pass through a 8 mm sizing screen but not through a 3mm sizing screen;
- (v) **crumbs :** portion of kernels which cannot pass through 2 mm sieve. **Crumbs shall not be graded in Extra class.**
- (vi) **Combination :** Combination of kernels of different styles. Percentage of each style to be specified in the marking.

*chipped kernel means a portion representing at least three-quarters of a “half”.

(B) Size Tolerances:

- (i) **Halves :** 15% by weight of the kernels of which not more than 5% shall be quarters and large pieces and not more than 1% each shall be Small/broken pieces and crumbs.
- (ii) **Quarters :** 15% by weight of the kernels of which not more than 5% shall be small/broken pieces and crumbs shall not exceed 1%.
- (iii) **Large pieces :** 15% by weight of the kernels of which crumbs shall not exceed 1%.
- (iv) **Small/broken pieces :** 15 % by weight of the kernels of which crumbs shall not exceed 2%.
- (v) **Crumbs :** 15% by weight of kernels.
- (vi) **Combination :** 15% by weight of kernels for each style as specified in the marking.

SCHEDULE- XLII
Grade designation and quality of Amla or Aonla(Fresh)

1. Amla or Aonla shall be obtained from varieties of *Emblica officinalis* of family *Euphorbiaceae*.
2. **MINIMUM REQUIREMENTS:**
 - (i) Amla or Aonla shall be sufficiently developed and display satisfactorily ripeness. It shall have the size, shape and colour characteristics of the variety.
 - (ii) Amla or Aonla shall be;
 - (a) fresh in appearance;
 - (b) intact and sound;
 - (c) clean, practically free of any visible foreign matter;
 - (d) sound, produce affected by rotting or deterioration, such as to make it unfit for human consumption is excluded;
 - (e) free from damage caused by low or high temperature;
 - (f) free from marked bruising or rubbing;
 - (g) free from insect infestations, live insect, dead insects, insect fragments, mould or mites, larvae, rodent hair and excreta;
 - (h) free from fermentation, rancid taste and musty odour;
 - (i) free from dirt, extraneous matter (including natural colours) and other harmful matters;
 - (j) free from any fungal or bacteria contamination;
 - (k) free from damage caused by hail;
 - (l) free from damage caused by heating;
 - (m) free from cavities and cracks in the skin.
 - (iii) Amla or Aonla shall comply with residue levels of Heavy metal, insecticide/ pesticide residue and other food safety requirements or importing country's requirements as laid down by the Codex Alimentarius Commission for exports.
3. **CRITERIA FOR GRADE DESIGNATION:**

Grade designations	Grade requirements	Grade tolerances
(1)	(2)	(3)
Extra class	Amla/Aonla shall be of superior quality. They must be	5% by number or

	<p>having characteristics of the commercial variety/ type in shape, external appearance, development and color. 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, quality keeping quality and presentation in the package.</p> <p>It shall be free from swelling caused by abnormal development; The defects shall not affect the flesh of the produce.</p> <p>In this class, Amla or Aonla shall not be less than equatorial diameter of 35 mm.</p>	weight of Amla or Aonla 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	<p>Amla or Aonla shall be of good quality. They shall be having characteristics of the commercial variety/ type. Following slight defects may be there, provided these do not affect the general appearance of the produce, quality, the keeping quality and presentation in the package.</p> <p>Amla or Aonla having the following negligible defects may be allowed:-</p> <ul style="list-style-type: none"> - slight defects in shape; - defects in colour covering only up to 1/20th of the surface; - slight skin defects not exceeding 2 sq. cm. <p>The defects shall not, in any case, affect the pulp of the fruit.</p>	10% by number or weight of Amla or Aonla not satisfying the requirements of the grade, but meeting those of Class-II or, exceptionally, coming within the tolerances of that grade.
Class-II	<p>This grade includes Amla or Aonla which do not qualify for inclusion in the higher grades, but satisfy the minimum requirements. Following defects shall be allowed, provided the Amla or Aonla retain their essential characteristics as regards quality, keeping quality and presentation in the package:-</p> <ul style="list-style-type: none"> - defects in shape; - defects in colour covering only upto 1/10th of the surface; - skin defects (mechanical bruising, sun spots, latex burns). The total area affected should not exceed 4 sq. cm. of the total surface. <p>The defects shall not in any case, affect the pulp of the fruit.</p>	10 % by number or weight of Amla or Aonla not satisfying the requirements of the grade but meeting the minimum requirements.

4. OTHER REQUIREMENTS:

- (i) Amla or Aonla 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.
- (ii) The development and condition of Amla or Aonla shall be such as to

enable them;

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

(iii) It shall be marked on the package-

- for table purpose;
- for medicinal purpose;

(iv) In case of Extra class, uniformity of colouring and ripeness is must.

(v) Packages must be free of foreign matter.

(vi) Amla or Aonla may be presented –

- o arranged in layers, i.e., one or two layers separated from each other;
- o loose in the package (including in bulk bins);
- o transported in bulk in the means of transport;
- o in bulk in the packaging, except for the 'Extra Class'.

(vii) Amla or Aonla in 'Extra Class' shall be particularly well presented.

5. Provision concerning sizing:-

(i) Size is determined by the maximum equatorial diameter of Amla/Aonla in mm.

Size code	Maximum equatorial diameter in mm.
A	35.1 and above
B	30.1 – 35.0
C	25.0-30.0

(ii) **Size tolerance:** For all grades, 10% by number or weight of Amla/Aonla corresponding to the size immediately above and/ or below than indicated in the package.”

[File No. 18011/7/2008-M.II]

(RAJENDRA KUMAR TIWARI)
Joint Secretary (Agricultural Marketing)

Note—(1) The principal Rules were published in the Gazette of India, vide number GSR 220, dated, the 26th June, 2004 and amended vide number GSR 171, dated, the 9th August, 2007.

