

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

New Delhi, the 24<sup>th</sup> September, 2012

NOTIFICATION

G.S.R. 711 (E).-- whereas the draft of Spices Grading and Marking Rules, 2012 was published as required by section 3 of the Agricultural Produce (Grading and Marking) Act, 1937 (1 of 1937) in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* notification number G.S.R. 262(E), dated, the 29<sup>th</sup> March, 2012, inviting objections and suggestions from all persons likely to be affected thereby within forty-five days from the date on which copies of the said notification published in the Gazette of India were made available to the public;

And, whereas, copies of the said notification were made available to the public on the 26<sup>th</sup> April, 2012;

And, whereas, the objections and suggestions received from the public in respect of the said draft rules have been duly considered;

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 the Spices Grading and Marking Rules, 2005 except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely :-

## RULES

- 1. Short title, application and commencement.** - (1) These rules may be called Spices Grading and Marking Rules, 2012.
  - (2) They shall apply to the following spices (whole and powder) namely:-
    - (a) Turmeric
    - (b) Chillies
    - (c) Black Pepper
    - (d) Cardamom
    - (e) Large Cardamom
    - (f) Coriander
    - (g) Ginger
    - (h) Cumin
    - (i) Cumin Black (Kalonji)
    - (j) Fennel
    - (k) Fenugreek
    - (l) Celery seed
  - (3) They shall come into force on the date of their publication in the Official Gazette.
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- 2. (1) Definitions.** - In these rules, unless the context otherwise requires,-
    - (a) "Agricultural Marketing Adviser" means the Agricultural Marketing Adviser to the Government of India;
    - (b) "authorised packer" means a person or a body of persons who has or have been granted a certificate of authorisation to grade and mark spices in accordance with the grade standards and procedure prescribed under these rules;
    - (c) "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 spices (whole and powder) with the grade designation mark;
    - (d) "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);
    - (e) "grade designation mark" means the "Agmark Insignia" referred to in rule 3.
    - (f) "Schedule" means a Schedule appended to these rules.
  - (2) Words and expressions used in these rules and not defined but defined in the Agricultural Produce (Grading and Marking) Act, 1937 (1 of 1937) and the General Grading and Marking Rules, 1988 shall have the same meanings as are assigned to them under the said Act and the said rules.

3. **Grade designation mark .-** The grade designation mark shall consist of “AGMARK Insignia” consisting of a design incorporating 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 designations. –** The grade designations to indicate the quality of spices shall be as set out in column I of Criteria for Grade designation of Schedule II to XXXII.
5. **Quality. -** For the purpose of these rules, the quality of spices shall be as given in Schedule- II to XXXII.
6. **Method of packing.-** (1)Spices (whole and powder) shall be packed in new clean and dried jute bags, paper bags, cloth bags, poly woven bags with inner lining of food grade material or poly pouches , High Density Poly Ethylene (HDPE) bags of food grade material or any other packing material as approved by the Agricultural Marketing Adviser.
  - (2) The packing material shall be free from insect or fungal infestation and shall not impart any toxic substance or undesirable odour or flavour to the product.
  - (3) Spices (whole and powder) shall be packed in pack sizes as per provisions in the Legal Metrology (Packaged Commodities) Rules, 2011 or as per the instructions issued by Agricultural Marketing Adviser from time to time.
  - (4) Each package shall contain spices (whole and powder) of the same type and of the same variety, origin and grade designation and the visible part of the contents of the package shall be representative of the entire contents.
  - (5) Graded material of small pack sizes of the same lot or batch and grade may be packed in a master container with complete details thereon along with grade designation mark.
  - (6) Each package shall be securely closed and sealed so as to disallow spilling.
  - (7) The material used inside the package shall be new, clean and of such a quality as to avoid causing any external or internal damage to the produce.
  - (8) The use of material paper or stamps bearing trade specifications may be permitted provided that printing or labeling is done with non- toxic ink or glue.
7. **Method of Marking and Labeling.-** (1) 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 in accordance with rule 11 of the General Grading and Marking Rules.
  - (2) In addition to the grade designation mark, the following particulars shall be clearly and indelibly marked on each package, namely :-
    - (a) Name and address of the authorised packer;
    - (b) Place of packing or processing;
    - (c) Lot or batch number;

- (d) Date of packing;
- (e) Grade;
- (f) Variety (wherever applicable);
- (g) Type (wherever applicable);
- (h) Net weight;
- (i) Maximum retail Price(inclusive of all taxes);
- (j) BEST BEFORE-----DATE-----MONTH-----YEAR;
- (k) any other information as may be specified under the Legal Metrology (Packaged Commodities) Rules, 2011, the Food Safety and Standards Act, 2006 or instructions issued by the Agricultural Marketing Adviser or any officer authorised by him.
- (l) Country of origin (wherever applicable);

(3) The ink used for marking on packages shall not contaminate the product;

(4) The authorised packer may, after obtaining prior approval of the Agricultural Marketing Adviser or an officer authorised by him in this behalf, 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.

**8. Special conditions of certificate of authorisation.-** In addition to the conditions specified under the sub-rule(8) of rule 3 of the General Grading and Marking Rules, the following shall be the special conditions of every certificate of authorisation issued for the purpose of these rules,namely :-

(1) The authorised packer shall either set up his own laboratory as per the specified norms or have access to an approved State Grading Laboratory or cooperative or association laboratory or a private commercial laboratory manned by a qualified chemist approved by the Agricultural Marketing Adviser or an officer authorised by him in this regard in accordance with rule 9 of the General Grading and Marking Rules, for testing the quality of spices (whole and powder);

(2) The premises shall be maintained in hygienic and sanitary conditions with proper ventilations and well lighted arrangement. The personnel engaged in these operations shall be in good health and free from any infectious, contagious or communicable diseases;

(3) The premises shall have adequate storage facilities with clean and proper flooring and free from rodent and insect infestation;

(4) The authorised packer and the approved chemist shall observe all instructions regarding testing, grading, packing, marking, sealing and maintenance of records which may be issued by the Agricultural Marketing Adviser or any other officer authorised by him in this regard from time to time.

**Schedule- I**  
(See rule 3)  
(Design of Agmark Insignia)



Name of Commodity.....

Grade.....

**Schedule-II**

(See rule 4)

## Grade designations and quality of Turmeric (whole)

Grade Designation	Quality						
Special Characteristics (percent by mass)							
	Organic extraneous matter,  (Maximum)	Inorganic extraneous matter,  (Maximum)	Defective rhizomes,  (Maximum)	Moisture,  (Maximum)	Curcuminoid content on dry weight basis, (Minimum)	Insect damaged matter  (Maximum)	Lead chromate test
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	0.3	0.1	3.0	11.0	3.0	0.20	Negative
Standard	0.7	0.3	5.0	12.0	2.0	0.50	Negative
General Characteristics							
(9)							
(1)	The turmeric whole is the primary or secondary rhizomes of <i>Curcuma longa</i> L.						
(2)	The rhizomes shall be well dried , well developed and shall have the shape ,colour characteristic of the variety;						
(3)	It shall have all characteristic odour and flavour of the turmeric;						
(4)	The cured rhizomes shall be in natural state or polished;						
(5)	It shall not be treated with any artificial colour, including lead chromate and shall also be free from added starch and harmful substances;						
(6)	It shall be free from mould growth, living and dead insects, insect infestation, insect fragments and rodent contamination;						
(7)	It shall be free from mustiness and rancidity;						
(8)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act,2006 for domestic trade.						
(9)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.						

**Explanations.-**

- |     |                               |  |
|-----|-------------------------------|--|
| (a) | “Defective rhizomes” means    | Shriveled fingers and or bulbs, internally damaged, hollow or porous rhizomes, rhizomes scorched by boiling and other types of damaged rhizomes. |
| (b) | “Inorganic extraneous matter” | Such as dust, dirt, stones and lumps of earth.   |
| (c) | “Organic extraneous matter”   | Such as chaff, stems, straw.   |
| (d) | “Insect damaged matter”       | The produce internally or partially bored or damaged by pest/insect.   |

**Note:** When fingers are graded separately, it shall not contain more than -

- |     |   |
|-----|---|
| (1) | 2% and 7% (m/m) of pieces of rhizomes (of length less than 15 mm and fragments) in special grade and standard grade respectively; |
| (2) | 2% and 5% (m/m) of bulbs in special grade and standard grade respectively;  |

**Schedule-III**

(See rule 4)

Grade designations and quality of Turmeric Powder

Grade Designation	Quality					
Special Characteristics (percent by mass)						
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Curcuminoid content on dry basis	Total Starch	Test of Lead chromate
	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	9.0	7.0	1.0	3.0	60.0	Negative
Standard	10.0	9.0	1.5	2.0	60.0	Negative
General Characteristics						
(8)						
(1)	Turmeric powder shall be prepared by grinding clean, wholesome dry Turmeric ( <i>Curcuma longa</i> L) rhizomes or bulbous roots in hygienic conditions;					
(2)	It shall be ground to such fineness that 95% of the product passes through a 300 micron sieve. It shall be labeled “Coarse Ground” when 95% of the product passes through 500 micron sieve;					
(3)	It shall have all its characteristic odour, flavour of the turmeric;					
(4)	It shall be free from musty odour or rancidity;					
(5)	It shall be free from any added colouring matter, morphologically extraneous matter including foreign starch and any other harmful substances;					
(6)	It shall be free from mould growth, lumps,dust, dirt, living insects and dead insects, insect fragments , insects infestation and rodent contamination;					
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act,2006 for domestic trade.					
(8)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.					

**Schedule - IV**

(See rule 4)

Grade designations and quality of Dry Chillies and Capsicums (Lal Mirchi)

Grade Designation	Quality								
	Special Characteristics (percent by mass)								
	Organic extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Unripe and marked fruits  (Maximum)	Broken fruits, seed and fragments  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl, on dry basis  (Maximum)	Capsaicinoid content  (Minimum)	Insect damaged matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	0.50	Nil	1.0	3.0	10.0	6.0	1.2	0.30	0.20
Standard	0.75	0.10	2.0	5.0	11.0	7.0	1.3	0.10	0.50
General Characteristics									
(11)									
<p>(1) Chillies and Capsicums are dried ripe pods (fruits) with or without stalk of plants of genus <i>Capsicum annum</i> L &amp; <i>Capsicum frutescens</i> .L of family <i>Solanaceae</i>;</p> <p>(2) It shall have all characteristic strong odour of variety Chillies and Capsicums;</p> <p>(3) It shall be free from rancidity and mustiness;</p> <p>(4) It shall be free from mould growth, living and dead insects, insect fragments, insects infestation, rodent contamination, coloring matter, coating of mineral oil and other harmful substances;</p> <p>(5) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>									

**Explanations:**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Broken fruits” means         | Fruits/Pods which are broken during handling and of which a part of the pod is missing;                   |
| (b) | “Fragments” means             | small pieces of fruits coming from broken fruits;   |
| (c) | “Inorganic extraneous matter” | Such as dust, dirt, stones and lumps of earth;  |
| (d) | “Marked fruits” means         | black or black stained fruits;  |
| (e) | “Organic extraneous matter”   | Such as chaff, stems, straw;  |
| (f) | “Unripe fruits” means         | Fruits not yet fully mature, the colour of which is different from that of the batch under consideration. |
| (g) | Insect damaged matter         | The produce internally or partially bored or damaged by pest/insect.                                      |

**Note:**

- (1) Capsicum shall have a length of minimum 25 mm.
- (2) For Special grade Capsaicinoid content shall be declared on the label.
- (3) Extraneous matter does not include unripe, Marked, or broken fruits of the variety under consideration.



**Schedule –V**

(See rule 4)

Grade designations and quality of ground (powdered) or fragmented Chillies and Capsicums (Lal Mirchi)

Grade Designation	Quality					
Special Characteristics (percent by mass)						
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl, on dry basis	Crude fiber On dry basis	Non-volatile Ether extract on dry basis	Capsaicinoid content
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	10.0	7.0	1.25	28.0	13.0	0.30
Standard	11.0	8.0	1.30	30.0	12.0	Not specified
General Characteristics						
(8)						
<p>(1) Fragmented /ground Chillies and Capsicums are the products obtained by grinding or fragmenting clean, dried, ripened fruits or pods of <i>Capsicum annum L</i> &amp; <i>Capsicum frutescens L</i> of family <i>Solanaceae</i> without stalk respectively in hygienic condition . It can also be a mixture of Chillies, Capsicums;</p> <p>(2) It shall have all characteristic pungent taste;</p> <p>(3) It shall be without any added coloring matter, flavoring matter, mineral oil and other harmful substances;</p> <p>(4) It shall also be free from rancidity, mustiness and off flavor;</p> <p>(5) It shall be free from lumps, mould growth, insects infestation, living and dead insects, insect fragments, dirt and rodent contamination;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act,2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>						

Note: (1) For special grade, Capsaicinoid content shall be declared on the label.

(2) Chillies powder may contain any edible vegetable oil to a maximum limit of 2 per cent by mass under a label declaration for the amount and nature of vegetable oil used.

**Schedule -VI**

(See rule 4)

**Grade designations and quality of Processed Black Pepper (Whole)**

<b>Grade Designation</b>	<b>Quality</b>										
	<b>Special Characteristics(percent by mass)</b>										
	Organic extraneous matter	Inorganic extraneous matter	Light berries	Pinheads or broken berries	Bulk Density gm/litre	Moisture	Total ash on dry basis	Non-volatile ether extract on dry basis	Volatile oil on dry basis per cent (v/w)	Piperine content on dry basis	Insect damaged matter
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)	(Minimum)	(Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Special	0.50	0.10	3.0	1.0	500	11.0	4.0	7.0	2.2	4.5	0.20
Standard	0.75	0.20	5.0	2.0	490	12.0	5.0	6.0	2.0	4.0	0.50
<b>General Characteristics</b>											
(13)											
<p>(1) Black pepper shall be sound, dried, mature berries of <i>Piper nigrum</i> L. of family <i>Piperaceae</i> having an unbroken pericarp, brown to black in colour with wrinkled pericarp.</p> <p>(2) It shall have the fresh and pungent taste and flavour <b>Characteristics of black pepper</b>;</p> <p>(3) it shall be free from rancidity and mustiness;</p> <p>(4) It shall be free from mould growth, living and dead insects, insect fragments and rodent contamination;</p> <p>(5) It shall be free from added coloring matter and coating of mineral oil and any other harmful substances;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>											

**Explanations.-**

- (a) "Broken berries" means berry that has been separated into two or more pieces;
- (b) "Inorganic extraneous matter" Such as dust, dirt, stones and lumps of earth;
- (c) "Light berries" means berry that has reached an apparently normal stage of development but the kernel does not exist. Light berries, pin head or broken are not considered as extraneous matter.
- (d) "Organic extraneous matter" means Such as chaff, stems, straw;
- (e) "Pinhead" means berry of very small size that has not developed;
- (f) "Processed black pepper" Means pepper that has been cleaned.
- (g) "Insect damaged matter" The produce internally or partially bored or damaged by pest/insect.

- Note:** (1) Volatile oil content should be determined immediately after grinding.
- (2) It may be marked 'Malabar'. It shall have bulk density of 550 gm/litre (Min.)
- (3) It may also be marked TGEB (Tellichery Garbled Extra Bold) or TGSEB (Tellichery Garbled Special Extra Bold) depending upon size of the berries. The berries shall be retained on sieve having holes of diameter 4.25 mm and 4.75 mm for TGEB and TGSEB respectively. Both shall have bulk density of 530 gm/litre (Min.) for Special Grade and 500 gm/litre (Min.) for Standard Grade.

**Schedule – VII**

(See rule 4 )

Grade designations and quality of Non-Processed or Semi-Processed Black Pepper (Whole)

Grade Designation	Quality										
	Special Characteristics (percent by mass)										
	Organic Extraneous matter (Maximum)	Inorganic extraneous matter (Maximum)	Light berries (Maximum)	Pinheads & broken berries (Maximum)	Insect damaged matter (Maximum)	Bulk Density, gm/litre (Minimum)	Moisture (Maximum)	Total ash on dry basis (Maximum)	Non-volatile ether extract on dry basis (Minimum)	Volatile oil % (v/w) on dry basis (Minimum)	Piperine content on dry basis (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Special	0.50	0.10	4.0	3.0	0.7	500	12.0	5.0	7.0	2.2	4.0
Standard	0.75	0.25	5.0	4.0	1.0	490	13.0	6.0	6.0	2.0	4.0
General Characteristics											
(13)											
(1)	Black pepper shall be dried mature berries of <i>Piper nigrum</i> L of family <i>Piperaceae</i> having an unbroken pericarp brown to black in colour with wrinkled surface;										
(2)	It may be un cleaned or partially cleaned;										
(3)	It shall be fresh and pungent and the taste and flavour shall be characteristic of the black pepper;										
(4)	It shall be free from mould growth , living and dead insects, insect fragments,insects infestation and rodent contamination;										
(5)	It shall be free from added colouring matter, coating of mineral oil and other harmful substances;										
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act,2006 for domestic trade.										
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.										

**Explanations.-**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Broken berries” means        | berry that has been separated into two or more pieces;  |
| (b) | “Inorganic extraneous matter” | Such as dust, dirt, stones and lumps of earth;  |
| (c) | “Light berries” means         | berry that has reached an apparently normal stage of development but the kernel does not exist; |
| (d) | “Non-processed pepper” means  | pepper that has not undergone any cleaning;   |
| (e) | “Organic extraneous matter”   | Such as chaff, stems, straw;  |
| (f) | “Pinhead” means               | berry of very small size that has not developed;  |
| (g) | “Semi-Processed pepper” means | pepper that has undergone partial cleaning.   |
| (h) | Insect damaged matter         | The produce internally or partially bored or damaged by pest/insect.                            |

- Note:**(1) Non-Processed or Semi-Processed Whole Black Pepper is not meant for direct human consumption.
- (2) Volatile oil content should be determined immediately after grinding.
- (3) It may be marked ‘Malabar’. It shall have bulk density of 550 gm/litre (Min.) It may also be marked TGEb (Tellichery Garbled Extra Bold) or TGSEb (Tellichery Garbled Special Extra Bold) depending upon size of the berries. The berries shall be retained on sieve having holes of diameter 4.25 mm and 4.75 mm for TGEb and TGSEb respectively. Both shall have bulk density of 530 gm/litre (Minimum) for Special Grade and 500 gm/liter (Minimum) for Standard Grade.

## Schedule- VIII

(See rule 4)

## Grade designations and quality of Black Pepper Powder

Grade Designation	Quality						
Special Characteristics (percent by mass)							
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Crude fiber On dry basis	Non-volatile ether extract on dry basis	Volatile oil content per cent on dry basis (v/w)	Piperine content on dry basis
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	11.0	5.0	1.0	17.0	6.5	2.0	4.5
Standard	12.0	6.0	1.2	17.5	6.0	1.75	4.0
General Characteristics							
(9)							
<p>(1) It shall be obtained by grinding dried sound berries of <i>Piper nigrum</i> L of family <i>Piperaceae</i> without addition to any other matter ;</p> <p>(2) It shall be ground to such fineness that the whole of it passes through a 500 micron sieve. It can be ground to such fineness that whole of it passes through 1000 micron sieve, In such case, the product should be labeled 'Coarse Powder';</p> <p>(3) It shall have all characteristic aromatic flavour ;</p> <p>(4) It shall be free from foreign odour ,mustiness or rancidity;</p> <p>(5) It shall be free from any foreign matter, lumps, mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(6) It shall be free from added coloring matter, mineral oil and any other harmful substances;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards ( Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act,2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>							

Grade Designation	Quality								
Special Characteristics (percent by mass)									
	Organic Extraneous matter (Maximum)	Inorganic extraneous matter (Maximum)	Empty and malformed capsules per cent by count (Maximum)	Immature & shriveled capsules (Maximum)	Insect damaged matter * (Maximum)	Mass in gm/litre (Minimum)	Moisture (Maximum)	Total ash on dry basis (Maximum)	Volatile oil on dry basis % (v/w) (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	0.2	0.1	2.0	2.0	0.20	435	11.0	8.0	4.0
Standard	0.7	0.3	3.0	3.0	0.50	385	13.0	9.5	3.5
General Characteristics									
(11)									
<p>(1) Cardamom capsules shall be dried, sound and wholesome (without split and black) fruits of <i>Elettaria cardamomum</i> (L.) of family <i>zingiberaceae</i>;</p> <p>(2) It shall be oblong in shape with a rounded part or three cornered and having ribbed appearance;</p> <p>(3) It shall be well formed and contain sound seeds;</p> <p>(4) It shall have all characteristic odour and flavor of Cardamom;</p> <p>(5) It shall be free from any foreign odour or flavors including those of rancidity and mustiness;</p> <p>(6) Colour of the capsules may be (a) Light Green (b) Green (c) Deep Green or (d) pale Brownish, (e) pale cream to white when bleached with sulphur dioxide. Capsules shall be packed according to the colour group and it shall be indicated on the label. At least 95% of the capsules shall correspond to the respective colour group;</p> <p>(7) In addition to grade, cardamom may be marked as described below. This marking shall be done only when the product is produced only in the particular area:-</p> <p>(a) Alleppey Green Extra Bold (AGEB) when retained on sieve having holes of diameter 7.0 mm.</p> <p>(b) Corg Green Extra Bold (CGEB) when retained on sieve having holes of diameter 8.0 mm.</p> <p>(c) Alleppey Green Bold (AGB) when retained on sieve having holes of diameter 6.0 mm.</p> <p>(d) Corg Green Bold (CGB) when retained on sieve having holes of diameter 7.5 mm.</p> <p>(e) Alleppey Green Superior (AGS) when retained on sieve having holes of diameter 5.0 mm.</p> <p>(f) Corg Green Superior (CGS) when retained on sieve having holes of diameter 6.0 mm.</p> <p>(8) It shall be free from any added coloring matter and other harmful substances;</p> <p>(9) It shall be free from mould growth, living and dead insects, insect fragments and rodent contamination;</p> <p>(10) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(11) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>									

**Explanations.**

- |     |                                   |  |
|-----|-----------------------------------|--|
| (a) | “Empty and Malformed capsules”    | capsules which have no seeds or are scantily filled with seeds;      |
| (b) | “Immature and Shriveled capsules” | capsules which are not fully developed;                              |
| (c) | “Inorganic extraneous matter”     | Such as dust, dirt, stones and lumps of earth;                       |
| (d) | “Organic extraneous matter”       | Such as chaff, stems, straw;   |
| (e) | Insect damaged matter             | The produce internally or partially bored or damaged by pest/insect. |

**Note:-** (1) The determination of Volatile Oil shall be made immediately after grinding the seeds obtained by separating the skin.

\* Thrip marks alone should not lead to the conclusion that the capsules have been infested with insects.

**Schedule-X**

(See rules 4)

Grade designations and quality of Bleached or Half Bleached Cardamom Whole Capsules (Chhoti Elaichi)

Grade Designation	Quality									
	Special Characteristics (percent by mass)									
	Organic Extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Empty and malformed capsules  (Maximum)	Immature and shriveled capsules  (Maximum)	Size Diameter of holes in mm. in the sieve on which retained	Mass in gm/litre  (Minimum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Volatile oil on dry basis per cent (v/w)  (Minimum)	Insect damaged matter *  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	0.50	0.10	Nil	Nil	8.5	360	12.5	8.0	4.0	0.20
Standard	0.75	0.25	Nil	Nil	5.0	300	13.0.	9.5	3.5	0.50
General Characteristics										
(12)										
(1)	Cardamom Capsules shall be fully developed dried fruits of <i>Elettaria cardamomum</i> (L) of family zingiberaceae;									
(2)	It shall be oblong in shape with a rounded part or three cornered with skin ribbed or smooth;									
(3)	It shall be bleached and/or half bleached by Sulphur dioxide and color shall range from pale cream to white;									
(4)	It shall be free from added coloring matter and harmful substances;									
(5)	It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;									
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.									
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.									

**Explanations.-**

- (a) "Empty and Malformed capsules" Capsules which have no seeds or are scantily filled with seeds;
- (b) "Immature and Shriveled capsules" means Capsules which are not fully developed;
- (c) "Inorganic extraneous matter" Such as dust, dirt, stones and lumps of earth;
- (d) "Organic extraneous matter" Such as chaff, stems, straw;
- (e) Insect damage matter The produce internally or partially bored or damaged by pest or insect

**Note:-** (1) The determination of Volatile Oil shall be made immediately after grinding the seeds obtained by separating the skin.

\* Thrip marks alone should not lead to the conclusion that the capsules have been infested with insects.

**Schedule –XI**

(See rule 4)

Grade designations and quality of Cardamom (Chhoti Elaichi) Seeds Powder / fragmented

Grade Designation	Quality				
Special Characteristics (percent by mass)					
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Volatile oil on dry basis per cent (v/w)	Crude fibre on dry basis
	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)
(1)	(2)	(3)	(4)	(5)	(6)
Special	10.0	7.0	2.5	3.5	10.0
Standard	11.0	8.0	3.0	3.0	12.0
General Characteristics					
(7)					
<p>(1) It shall be obtained by grinding/fragmenting the dried wholesome seeds of any variety of <i>Elettaria cardamomum</i>(L) of family <i>zingiberaceae</i>; without addition of any other substance ;</p> <p>(2) It shall have all characteristic taste and flavour of Cardamom;</p> <p>(3) It shall be free from foreign odour, rancidity and mustiness;</p> <p>(4) It shall be free from any adulterant, added colouring matter and any other harmful substances;</p> <p>(5) It shall be free from lumps, mould growth,insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(6) It may be in the form of small piece of seeds or finely ground form;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards ( Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>					



**Schedule-XII**

(See rule 4 )

## Grade designations and quality of Cardamom (Chhoti Elaichi) Seeds

Grade Designation	Quality							
	Special Characteristics (percent by mass)							
	Organic Extraneous matter (Maximum)	Inorganic extraneous matter (Maximum)	Light seeds (Maximum)	Mass in gm/litre (Minimum)	Moisture (Maximum)	Total ash on dry basis (Maximum)	Volatile oil on dry basis(v/w) (Minimum)	Insect damaged matter (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	0.5	0.3	2.0	675	12.0	7.0	4.0	0.20
Standard	1.5	0.5	3.0	625	13.0	9.5	3.5	0.50
General Characteristics								
(10)								
<p>(1) It shall be obtained by separating the seeds from the dried capsules of nearly ripe fruits <i>Elettaria cardamomum</i>(L); of family <i>zingiberaceae</i>;</p> <p>(2) It shall have all characteristic odour and flavor of the Cardamom;</p> <p>(3) It shall be free from foreign odour or flavour including those of rancidity and mustiness;</p> <p>(4) It shall be free from added colouring matter and any other harmful substances;</p> <p>(5) It shall be free from mould growth, insect infestation, living insects and dead insects, insect fragments and rodent contamination;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>								

**Explanations:-**

- (a) "Light Seeds" – includes seeds brown or red in colour and immature and shriveled seeds;
- (b) "Organic Extraneous matter" – Such as chaff, stems, straw;
- (c) "Inorganic extraneous matter" – Such as dust, dirt, stones and lumps of earth;
- (d) Insect damaged matter - The produce internally or partially bored or damaged by pest/insect

**Note:** Volatile Oil shall be determined immediately after grinding.

**Schedule-XIII**

(See rule 4)

Grade designations and quality of Large Cardamom Capsules (Badi Elaichi)

Grade Designation	Quality									
	Special Characteristic (percent by mass)									
	Organic Extraneous matter	Inorganic extraneous matter	Immature, shriveled capsules	Empty and malformed capsules (% By count)	Mass in gm/lit	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl on dry basis	Volatile Oil on dry basis % (v/w)	Insect damaged matter
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	0.6	0.10	1.0	1.0	350	11.0	6.0	1.0	1.5	0.10
Standard	0.8	0.20	2.0	2.0	300	12.0	8.0	2.0	1.0	0.50
General Characteristics										
(12)										
<p>(1) It shall be dried, nearly ripe to ripe wholesome (without split and black) fruits (capsule) of <i>Amomum subulatum</i> Roxb;</p> <p>(2) It shall be ovoid and more or less triangular shaped with a ribbed appearance;</p> <p>(3) It shall have all characteristic taste and flavour of the Large Cardamom;</p> <p>(4) It shall be free from foreign odour, rancidity and mustiness;</p> <p>(5) It shall be free from added colouring matter and any other harmful substance;</p> <p>(6) It shall be free from mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>										

**Explanations -**

- |     |   |   |
|-----|---|---|
| (a) | “Empty and Malformed capsules” means    | capsules which are without seeds or are scantily filled with seeds; |
| (b) | “Immature and Shriveled capsules” means | capsules which are not fully developed ;                            |
| (c) | “Inorganic extraneous matter”           | Such as dust, dirt, stones and lumps of earth;                      |
| (d) | “Organic extraneous matter”             | Such as chaff, stems, straw;  |
| (e) | Insect damaged matter                   | The produce internally or partially bored or damaged by pest/insect |

**Note:** The determination of Volatile Oil shall be made immediately after grinding the seeds obtained by separating the skin.

**Schedule-XIV**

(See rule 4)

Grade designations and quality of Large Cardamom (Badi Elaichi) Seeds

Grade Designation	Quality							
	Special Characteristics (percent by mass)							
	Organic Extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Light seeds/ brown/red seeds  (Maximum)	Insect damaged matter  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl, on dry basis (Maximum)	Volatile Oil on dry basis % (v/w) (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	0.5	0.3	2.5	0.10	11.0	7.0	1.5	1.5
Standard	1.5	0.5	3.0	0.50	12.0	8.0	2.0	1.0
General Characteristics								
(10)								
<p>(1) Large Cardamom Seeds shall be obtained by decorticating the dried wholesome capsules of <i>Amomum subulatum</i> Roxb.;</p> <p>(2) It shall have all characteristic taste and flavour of the Large Cardamom;</p> <p>(3) It shall free from foreign odour, rancidity and mustiness;</p> <p>(4) It shall be free from added colouring matter and any other harmful substance;</p> <p>(5) It shall be free from mould growth, insects infestation and living and dead insects, insect fragments and rodent contamination;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>								

**Explanations.-**

- (a) "Light Seeds" – includes seeds which are brown or red in colour, broken, immature and shriveled ;
- (b) "Organic Extraneous matter" – Such as chaff, stems, straw;
- (c) "Inorganic extraneous matter"- Such as dust, dirt, stones and lumps of earth;
- (d) Insect damaged matter- The seeds internally or partially bored or damaged by pest/insect.

**Note:** Volatile Oil shall be determined immediately after grinding.

[illegible]

**Schedule-XVI**

(See rule 4)

Grade designations and quality of Coriander (Whole)

Grade Designation	Quality								
	Special Characteristics (percent by mass)								
	Organic Extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Split fruits  (Maximum)	Damaged, discoloured and shriveled fruits  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl, on dry basis  (Maximum)	Volatile Oil on dry basis % (v/w)  (Minimum)	Insect damaged Matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	0.25	0.10	4.0	1.0	8.0	6.0	1.0	0.2	0.10
Standard	0.75	0.20	10.0	2.0	9.0	7.0	1.5	0.1	0.50
General Characteristics									
(11)									
(1)	Coriander (Whole) shall be dried mature fruits (Seeds) of <i>Coriandrum sativum</i> L of the family <i>Umbelliferae</i> ;								
(2)	It shall have all characteristic aroma and flavour of the Coriander ;								
(3)	It shall be free from mustiness, rancidity;								
(4)	It shall be free from mould growth , insect infestation ,living and dead insects, insect fragments and rodent contamination;								
(5)	It shall be free from foreign colouring matter and any other harmful substances;								
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.								
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.								

**Explanations.-**

- |     |  |  |
|-----|--|--|
| (a) | “Damaged, discolored, shriveled, fruits” | includes whole or split fruits that are damaged, discolored or shriveled ; |
| (b) | “Inorganic extraneous matter”            | Such as dust, dirt, stones and lumps of earth;                             |
| (c) | “Organic extraneous matter”              | Such as chaff, stems, straw;   |
| (d) | “Split fruits”                           | Includes fruits which have been split longitudinally into two parts.       |
| (e) | Insect damaged matter                    | The produce internally or partially bored or damaged by pest/insect        |

Note: (1) The Volatile oil content shall be determined immediately after grinding.

## Schedule-XVII

(See rule 4)

### Grade designations and quality of Coriander Powder

Grade Designation	Quality					
Special Characteristics (percent by mass)						
	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl , on dry basis  (Maximum)	Crude fiber on dry basis  (Maximum)	Non-volatile ether extract on dry basis  (Minimum)	Volatile oil on dry basis ,% (v/w)  (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	8.0	6.5	1.0	25.0	15.0	0.15
Standard	9.0	7.0	1.5	28.0	12.0	0.09
General Characteristics						
(8)						
<p>(1) Coriander Powder shall be obtained by grinding clean, sound, dried and mature fruits of <i>Coriandrum sativum</i> L. of the family <i>Umbelliferae</i> ;</p> <p>(2) It shall be ground to such fineness that 98% of the product passes through a 500 micron sieve. It shall be labeled "coarse ground" when 98% of the product passes through 1000 micron sieve;</p> <p>(3) It shall have a typical aroma and flavour and all characteristic of the Coriander;</p> <p>(4) It shall be free from musty odour and rancidity;</p> <p>(5) It shall be free from added coloring matter ,starch ,bleach or preservatives ,any foreign matter and other harmful substance;</p> <p>(6) It shall be free from lumps, mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>						

**Schedule-XVIII**

(See rule 4)

Grade designations and quality of Garbled Non-bleached Ginger (Whole)

Grade Designation	Quality							
Special Characteristics (percent by mass)								
	Size of rhizomes, (length in mm).  (Minimum)	Organic Extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Calcium (as calcium oxide) on dry basis (Maximum)	Volatile Oil on dry basis % (v/w)  (Minimum)	Insect damaged matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	20.0	0.20	0.10	11.0	7.0	1.0	1.7	0.20
Standard	15.0	0.75	0.20	12.0	8.0	1.1	1.5	0.50
General Characteristics								
(10)								
<p>(1) It shall be dried wholesome rhizomes of <i>Zingiber officinale</i> Roscoe of family <i>Zinziberacea</i> in pieces, irregular in shape and size, pale brown in colour;</p> <p>(2) Its fibrous content shall be characteristic of the variety with peel not entirely removed ;</p> <p>(3) It shall have all characteristic taste and flavour of Ginger;</p> <p>(4) It shall be free from musty odour , rancid or bitter taste;</p> <p>(5) It shall be free from added colouring matter and any other harmful substance;</p> <p>(6) It shall be free from mould growth, insects infestation and living and dead insects, insect fragments and rodent contamination;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>								

**Explanations:**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Inorganic extraneous matter” | Such as dust, dirt, stones and lumps of earth;                      |
| (b) | “Organic extraneous matter”   | Such as chaff, stems, straw;  |
| (c) | “Insect damaged” matter       | The produce internally or partially bored or damaged by pest/insect |

- Note:** (1) Pieces of rhizomes smaller than 15 mm can be graded with the marking “ Garbled Non-bleached Ginger(Pieces)”.
- (2) It may be marked “Garbled Non-bleached Calicut” (NGK) or “Garbled Non-bleached Cochin” (NGC) depending upon its place of origin.

**Schedule- XIX**

(See rule 4)

Grade designations and quality of Ungarbled Non-bleached Ginger (Whole)

Grade Designation	Quality								
Special Characteristics (percent by mass)									
	Size of rhizomes (length in mm)	Organic Extraneous matter	Inorganic extraneous matter	Insect damaged matter	Very light pieces	Moisture	Total ash on dry basis	Calcium (as calcium oxide) on dry basis	Volatile Oil on dry basis % (v/w)
	(Minimum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	20.0	0.25	0.10	0.5	4.0	11.0	7.0	1.0	1.7
Standard	15.0	0.75	0.20	1.0	6.0	12.0	8.0	1.1	1.5
General Characteristics									
(11)									
<p>(1) It shall be dried wholesome rhizomes of <i>Zingiber officinale Roscoe</i>, of family <i>Zinziberacea</i> in pieces, irregular in shape, pale brown in colour:</p> <p>(2) Its fibrous content shall be characteristic of the variety with peel not entirely removed;</p> <p>(3) It shall have all characteristic taste and flavour of Ginger;</p> <p>(4) It shall be free from musty odour , rancid or bitter taste</p> <p>(5) It shall be free from any added colouring matter and any other harmful substance;</p> <p>(6) It shall be free from mould growth, insects infestation and living and dead insects, insect fragments and rodent contamination;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>									

**Explanations:**

- (a) "Inorganic extraneous matter" Such as dust, dirt, stones and lumps of earth;
- (b) "Organic extraneous matter" Such as chaff, stems, straw;
- (c) Insect damaged matter The produce internally or partially bored or damaged by pest/insect

- Note:** (1) Pieces of rhizomes smaller than 15 mm can be graded with the marking "Ungarbled Non-bleached Ginger(Pieces)".
- (2) It may be marked "Ungarbled Non-bleached Calicut" (NUGK) or "Ungarbled Non-bleached Cochin" (NUGC) depending upon its place of origin.



**Schedule- XX**

(See rule 4)

Grade designations and quality of Garbled bleached Ginger (Whole)

Grade Designation	Quality							
	Special Characteristics (percent by mass)							
	Size of rhizomes, (length in mm).  (Minimum)	Organic extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Calcium (as calcium oxide) on dry basis  (Maximum)	Volatile Oil on dry basis % (v/w)  (Minimum)	Insect damaged matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	20.0	0.5	0.1	11.0	11.0	1.0	1.7	0.20
Standard	15.0	0.8	0.2	12.0	12.0	2.5	1.5	0.50
General Characteristics								
(10)								
<p>(1) It shall be dried rhizomes of <i>Zingiber officinale</i> Roscoe, of family <i>Zinziberacea</i> in pieces, irregular in shape, pale brown in colour;</p> <p>(2) Its fibrous content shall be characteristic of the variety with peel not entirely removed;</p> <p>(3) It shall be lime bleached;</p> <p>(4) It shall have all characteristic taste and flavour of Ginger ;</p> <p>(5) It shall be free from musty odour, rancid or bitter taste;</p> <p>(6) It shall be free from any added colouring matter and any other harmful substance;</p> <p>(7) It shall be free from mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(9) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>								

**Explanations:**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Inorganic extraneous matter” | Such as dust, dirt, stones and lumps of earth;                      |
| (b) | “Organic extraneous matter”   | Such as chaff, stems, straw;  |
| (c) | Insect damaged matter         | The produce internally or partially bored or damaged by pest/insect |

- Note:** (1) Pieces of rhizomes smaller than 15 mm can be graded with the marking “Garbled bleached Ginger (Pieces)”.
- (2) It may be marked “Garbled bleached Calicut” (BGK) or “Garbled bleached Cochin” (BGC) depending upon its place of origin.

**Schedule- XXI**

(See rule 4 )

Grade designations and quality of Ungarbled bleached Ginger (Whole)

Grade Designation	Quality								
	Special Characteristics (percent by mass)								
	Size of rhizomes (length in mm).  (Minimum)	Organic Extraneous matter  (Maximum)	Inorganic Extraneous matter  (Maximum)	Very light pieces  (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Calcium (as calcium oxide) on dry basis (Maximum)	Volatile Oil on dry basis % (v/w)  (Minimum)	Insect damaged matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	20.0	0.60	0.15	4.0	11.0	10.0	1.0	1.7	0.5
Standard	15.0	0.80	0.20	6.0	12.0	12.0	2.5	1.5	1.0
General Characteristics									
(11)									
(1) It shall be dried rhizomes of <i>Zingiber officinale Roscoe</i> of family <i>Zinziberacea</i> in pieces, irregular size shape and pale brown in colour; (2) Its fibrous content shall be characteristic of the variety with peel not entirely removed; (3) It shall be lime bleached; (4) It shall have all characteristic taste and flavour of Ginger; (5) It shall be free from musty odour, rancid or bitter taste; (6) It shall be free from added colouring matter and any other harmful substance; (7) It shall be free from mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination; (8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.  (9) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.									

**Explanations:**

- (a) "Inorganic extraneous matter": Such as dust, dirt, stones and lumps of earth;
- (b) "Organic extraneous matter": Such as chaff, stems, straw;
- (c) Insect damaged matter: The produce internally or partially bored or damaged by pest / insect;

- Note :** (1) Pieces of rhizomes smaller than 15 mm can be graded with the marking "Ungarbled bleached Ginger (Pieces)".
- (2) It may be marked "Ungarbled bleached Calicut" (BUGK) or "Ungarbled bleached Cochin" (BUGC) depending upon its place of origin.

**Schedule- XXII**

(See rule 4 )

Grade designations and quality of Ginger Powder (Unbleached)

Grade Designation	Quality							
	Special Characteristics(percent by mass)							
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Water soluble Ash on dry basis	Calcium (as calcium oxide) on dry basis	Alcohol (90%v/w) soluble extract on dry basis	Cold water soluble extract on dry basis	Volatile Oil per cent on dry basis (v/w)
	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Maximum)	(Minimum)	(Minimum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	11.0	7.0	0.75	1.9	0.75	5.5	12.0	1.7
Standard	12.0	8.0	1.0	1.7	1.1	5.1	11.4	1.5
General Characteristics								
(10)								
(1)	It shall be product obtained by grinding unbleached Ginger (Whole) or pieces of <i>Zingiber officinale</i> Roscoe of family <i>Zingiberaceae</i> in hygienic condition;							
(2)	It shall be grounded to such a fineness that whole of it passes through 1000 micron sieve;							
(3)	It shall have all characteristic taste and flavour of the Ginger;							
(4)	It shall be free from musty odour , rancid or bitter taste;							
(5)	It shall be free from added colouring matter and other harmful substances;							
(6)	It shall be free from lumps, mould growth, living and dead insects, insect fragments and rodent contamination;							
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.							
(8)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.							

**Note:** It shall be marked on the label accordingly to the powder obtained from type of Ginger.

**Schedule- XXIII**

(See rule 4)

Grade designations and quality of Ginger Powder (bleached)

Grade Designation	Quality							
Special Characteristics(percent by mass)								
	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl , on dry basis  (Maximum)	Water soluble Ash on dry basis  (Minimum)	Calcium (as calcium oxide) on dry basis  (Maximum)	Alcohol (90%v/w) soluble extract on dry basis  (Minimum)	Cold water soluble extract on dry basis  (Minimum)	Volatile Oil per cent on dry basis (v/w)  (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	11.0	11.0	0.75	1.9	2.0	5.5	12.4	1.7
Standard	12.0	12.0	1.0	1.7	2.5	5.1	11.4	1.5
General Characteristics								
(10)								
<p>(1) It shall be product obtained by grinding bleached Ginger (Whole) or pieces of <i>Zingiber officinale Roscoe</i> of family <i>Zinziberacea</i> in hygienic condition;</p> <p>(2) It shall be grounded to such a fineness that whole of it passes through 1000 micron sieve;</p> <p>(3) It shall have all characteristic taste and flavour of Ginger and shall not have a musty odour or a rancid or bitter taste;</p> <p>(4) It shall be free from any added colouring matter and other harmful substances;</p> <p>(5) It shall be free from mould growth and living insects and dead insects, insect fragments and rodent contamination;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>								

**Note: It shall be marked on the label accordingly to the powder obtained from type of Ginger.**

**Schedule-XXIV**

(See rule 4)

Grade designations and quality of Cumin (Whole)

Grade Designation	Quality									
	Special Characteristics (percent by mass)									
	Organic extraneous matter	Inorganic extraneous matter	Damaged, shrivelled, discoloured and immature seeds	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl, on dry basis	Non-volatile ether extract on dry basis	Volatile Oil on dry basis, percent(v/w)	Edible seeds other than cumin seeds	Insect damaged matter
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)	(Maximum)	(Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	1.0	0.5	3.0	9.0	8.0	1.0	16.0	2.5	Nil	0.20
Standard	2.0	1.0	4.0	10.0	9.5	2.5	15.0	1.5	Nil	0.50
General Characteristics										
(12)										
<p>(1) It shall be dried wholesome mature seeds of <i>Cuminum cyminum</i> L. of family <i>Apiaceae</i>;</p> <p>(2) Its flavour shall be characteristic aromatic flavor of the Cumin and free from mustiness and rancidity;</p> <p>(3) It shall be free any from any added colouring matter any other harmful substances;</p> <p>(4) It shall be free from mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(5) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>										

**Explanations .-**

- (a) DD Damaged, shrivelled, discoloured and immature seeds” - includes broken, dis-coloured, shriveled and immature fruits.
- (b) “Inorganic extraneous matter” - Such as dust, dirt, stones and lumps of earth.
- (c) “Organic extraneous matter” - Such as chaff, stems, straw;
- (d) Insect damaged matter - The produce internally or partially bored or damaged by pest/insect

**Note:** The Volatile Oil content shall be determined immediately after grinding.

**Schedule-XXV**

(See rule 4)

Grade designations and quality of Cumin Powder

Grade Designation	Quality				
Special Characteristics (percent by mass)					
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Non-volatile ether extract on dry basis	Volatile oil on dry basis percent(v/w)
	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)
Special	9.0	8.0	1.0	16.0	1.5
Standard	10.0	9.5	1.5	15.0	1.3
General Characteristics					
(7)					
(1)	Cumin Powder shall be obtained by grinding dried , sound and mature seeds of <i>Cuminum cyminum</i> L .of family <i>Apiaceae</i> ;				
(2)	It shall be ground to such a fineness that it shall pass completely through 1000 micron sieve;				
(3)	Its shall have all characteristic aromatic flavor of the Cumin and free from mustiness and rancidity;				
(4)	It shall be free from added colouring matter, foreign matter and any other harmful substances;				
(5)	It shall be free from lumps, mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;				
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.				
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.				

**Schedule-XXVI**

(See rule 4)

Grade designations and quality of Cumin Black (Kalonji) whole

Grade Designation	Quality									
Special Characteristics (percent by mass)										
	Organic extraneous matter  (Maximum)	Inorganic extraneous matter  (Maximum)	Damaged, shrivelled, discoloured and immature seeds (Maximum)	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl , on dry basis  (Maximum)	Non-volatile ether extract on dry basis  (Minimum)	Volatile Oil on dry basis , percent(v/w)  (Minimum)	Edible seeds other than cumin Black  (Maximum)	Insect damaged matter  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	0.25	0.10	3.0	9.0	6.0	1.0	13.0	1.5	1.0	0.20
Standard	1.0	0.25	5.0	10.0	8.0	1.5	12.0	1.0	2.0	0.50
General Characteristics										
(12)										
<p>(1) It shall be dried wholesome mature seeds of <i>Nigella sativa</i> L;</p> <p>(2) Its flavour shall have all characteristic aromatic flavor of the Cumin Black and free from mustiness and rancidity;</p> <p>(3) It shall be free from added colouring matter and any other harmful substances;</p> <p>(4) It shall be free from mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(5) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>										

**Explanations .-**

- (a) Damaged, shrivelled, discoloured and immature seeds” - Includes broken, discoloured, shriveled and immature fruits.
- (b) “Inorganic extraneous matter” - Such as dust, dirt, stones and lumps of earth.
- (c) “Organic extraneous matter” - Such as chaff, stems, straw;
- (d) Insect damaged matter - The produce internally or partially bored or damaged by pest/insect

**Note:** The Volatile Oil content shall be determined immediately after grinding.

**Schedule-XXVII**

(See rule 4)

Grade designations and quality of Cumin Black (kalonji) Powder

Grade Designation	Quality				
Special Characteristics (percent by mass)					
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Non-volatile ether extract on dry basis	Volatile oil on dry basis percent(v/w)
	(Maximum)	(Maximum)	(Maximum)	(Minimum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)
Special	8.0	6.0	1.0	14.0	1.2
Standard	9.0	7.0	1.5	12.0	0.9
General Characteristics					
(7)					
<p>(1) Cumin Black Powder shall be obtained by grinding dried , sound and mature seeds of <i>Nigella sativa</i> L ;</p> <p>(2) It shall be ground to such a fineness that it shall pass completely through 800 micron sieve;</p> <p>(3) It shall have all characteristic aromatic flavor of the Cumin Black and free from mustiness and rancidity;</p> <p>(4) It shall be free from added colouring matter, foreign matter and any other harmful substances;</p> <p>(5) It shall be free from lumps , mould growth, insects infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(6) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>					



**Schedule-XXVIII**

(See rule 4)

Grade designations and quality of Fennel (Whole)

Grade Designation	Quality							
Special Characteristics (percent by mass)								
	Organic extraneous matter	Inorganic extraneous matter	Defective seeds		Moisture	Volatile Oil per cent on dry basis (v/w)	Crude fibre on dry basis	Insect damaged matter
			Broken damaged seeds	Immature, shriveled, discoloured, blackened seeds (Maximum)				
	(Maximum)	(Maximum)	(Maximum)		(Maximum)	(Minimum)	(Maximum)	(Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	1.0	0.10	1.0	1.0	10.0	1.75	11.0	0.20
Standard	1.5	0.40	2.0	3.0	12.0	1.0	15.0	0.50
Total Ash on dry basis	Ash insoluble in Dil. Hcl, on dry basis	Edible seeds other than Fennel						
(Maximum)	(Maximum)							
(10)	(11)	(12)						
8.0	1.0	Absent						
10.0	2.0	Absent						
General Characteristics								
(13)								
(1)	Fennel seeds shall be wholesome dried fruits of <i>Foeniculum vulgare</i> P Miller.Var. <i>Vulgare</i> . of family <i>Umbelliferae</i> .							
(2)	It shall have all characteristic odour and a pleasant aromatic flavour characteristic of the Fennel;							
(3)	It shall be free from mustiness ,rancidity and other foreign flavour;							
(4)	It shall be free from added colouring matter and any other harmful substance;							
(5)	It shall be free from mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;							
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.							
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.							

**Explanations:**(1) **Defective seeds; means;**

(a) "Broken damaged seeds" - seeds which are broken or damaged ;

(b) "Immature, shriveled, discoloured and blackened seeds" – seeds which have not developed properly or which have been discoloured or blackened;

(2) "Inorganic extraneous matter" – Such as dust, dirt, stones and lumps of earth.

(3) "Organic extraneous matter" – Such as chaff, stems, straw;

(4) "Insect damaged matter"- The produce internally or partially bored or damaged by pest/insect

**Note:** The Volatile Oil content shall be determined immediately after grinding.

**Schedule-XXIX**

(See rule 4)

Grade designations and quality of Fennel Powder

Grade Designation	Quality				
Special Characteristics (percent by mass)					
	Moisture  (Maximum)	Total ash on dry basis  (Maximum)	Ash insoluble in Dil. HCl , on dry basis (Maximum)	Volatile oil on dry basis per cent (v/w) (Minimum)	Crude fibre on dry basis  (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)
Special	10.0	8.0	1.5	1.2	11.0
Standard	12.0	9.0	2.0	1.0	15.0
General Characteristics					
(7)					
<p>(1) Fennel powder shall be obtained by grinding ripe fruit seeds of dried <i>Foeniculum vulgare</i> P. Miller Var. <i>Vulgare</i>. of family <i>Umbelliferae</i>;</p> <p>(2) It shall be ground to such a fineness that it shall pass completely through a 800 micron sieve;</p> <p>(3) It shall have all characteristic aromatic flavour , characteristic of the Fennel;</p> <p>(4) It shall be free from mustiness ,rancidity and off flavour;</p> <p>(5) It shall be free from added colouring matter , other foreign matter and any other harmful substances;</p> <p>(6) It shall be free from mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;</p> <p>(7) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.</p> <p>(8) It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.</p>					

**Schedule-XXX**

(See rule 4)

Grade designations and quality of Fenugreek (Whole)

Grade Designation	Quality								
	Special Characteristics (percent by mass)								
	Organic extraneous matter (Maximum)	Inorganic extraneous matter, (Maximum)	Damaged and insect bored seeds (Maximum)	Total ash on dry basis (Maximum)	Ash insoluble in Dil. HCl, on dry basis (Maximum)	Cold water soluble extract on dry basis (Minimum)	Crude fibre on dry basis (Maximum)	Edible Seeds other than Fenugreek (Maximum)	Moisture (Maximum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	0.5	0.2	0.5	4.0	0.5	35.0	15.0	1.0	9.0
Standard	1.5	0.4	1.0	5.0	1.5	30.0	18.0	2.0	10.0
General Characteristics									
(11)									
(1)	Fenugreek (Whole) shall be wholesome dried mature seeds of <i>Trigonella foenum graecum</i> L of family <i>Fabaceae</i> ;								
(2)	It shall have all characteristic flavour and It shall be free from mustiness, any off-flavours and rancidity;								
(3)	It shall be free from any added colouring matter and any other harmful substance;								
(4)	It shall be free from mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;								
(5)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.								
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.								

**Explanations:**

- |     |                                  |  |
|-----|----------------------------------|--|
| (a) | “Damaged and insect bored seeds” | Includes all seeds which are damaged or which have been bored or attacked by weevils or other insects; |
| (b) | “Inorganic extraneous matter”    | Such as dust, dirt, stones and lumps of earth.   |
| (c) | “Organic extraneous matter”      | Such as chaff, stems, straw;   |

**Schedule-XXXI**

(See rule 4)

Grade designations and quality of Fenugreek Powder

Grade Designation	Quality				
Special Characteristics (percent by mass)					
	Moisture	Total ash on dry basis	Ash insoluble in Dil. HCl , on dry basis	Crude fibre, on dry basis	Cold water soluble extract on dry basis
	(Maximum)	(Maximum)	(Maximum)	(Maximum)	(Minimum)
(1)	(2)	(3)	(4)	(5)	(6)
Special	9.0	4.0	1.0	15.0	35.0
Standard	10.0	5.0	1.5	18.0	30.0
General Characteristics					
(7)					
(1)	Fenugreek Powder shall be obtained by grinding dried and ripened seeds of <i>Trigonella foenum graecum</i> L of family <i>Fabaceae</i> ;				
(2)	It shall be ground to such a fineness that it shall pass completely through a 1000 micron sieve;				
(3)	It shall have all characteristic aromatic flavour of Fenugreek and it shall be free from off-flavour, mustiness and rancidity;				
(4)	It shall be free from added colouring matter or any other harmful substance;				
(5)	It shall be free from lumps, mould growth, insect infestation, living and dead insects, insect fragments and rodent contamination;				
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.				
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.				

**Schedule-XXXII**

(See rule 4)

Grade designations and quality of Celery Seeds

Grade Designation	Quality					
Special Characteristics (percent by mass)						
	Organic extraneous matter (Maximum)	Inorganic extraneous matter (Maximum)	Moisture (Maximum)	Total Ash on dry basis, (Maximum)	Ash insoluble in Dil. HCl , on dry basis (Maximum)	Volatile oil content, (v/w), on dry basis (Minimum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	0.4	0.1	9.0	10.0	2.0	2.0
Standard	1.0	0.5	10.0	12.0	3.0	1.5
General Characteristics						
(8)						
(1)	Celery seeds shall be dried, ripe and matured fruits(seeds) of <i>Apium graveoleans</i> L of family <i>Apiaceae</i> ;					
(2)	It shall be of uniform in colour and have characteristic of the Celery;					
(3)	It shall be free from moulds, insect infestation, living and dead insects, insect fragments and rodent contamination;					
(4)	It shall be free from any added colouring matter and other harmful substance;					
(5)	Its shall have all characteristic aromatic flavour and shall be free from mustiness; rancidity and off flavour;					
(6)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified in the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 or any other Regulation notified under the Food Safety and Standards Act, 2006 for domestic trade.					
(7)	It shall comply with restrictions in regard to Aflatoxins, Heavy Metals, Insecticide or Pesticide residue, naturally occurring toxic substances, Microbial load or other food safety requirements as specified by the Codex Alimentarius Commission or importing Countries requirements for exports.					

**Explanations.-**

- (a) "Inorganic extraneous matter"      Such as dust, dirt, stones and lumps of earth.
- (b) "Organic extraneous matter"      Such as chaff, stems, straw;

[File No. 18011/2/2012-M.II]

( RAJENDRA KUMAR TIWARI)  
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