

## Spices Grading and Marking Rules

1. **Short title, application and commencement.**-These rules may be called Spices Grading and Marking Rules, 2005.
  - (1) They shall apply to following spices (whole and powder), namely:-
    - (a) Turmeric (*Curcuma longa*L.)
    - (b) Chillies/Capsicums/Paparika (*Capsicum annum* L.)
    - (c) Pepper (*Piper nigrum*)
    - (d) Cardamom (*Elettaria cardamomum*)
    - (e) Large Cardamom (*Amomum subulatum* Rozburg)
    - (f) Coriander (*Coriandrum sativum* L.)
    - (g) Ginger (*Zingiber officinale*)
    - (h) Cumin (*Cuminum cyminum* L.)
    - (i) Fennel (*Foeniculum vulgare*)
    - (j) Fenugreek (*Trigonella foenum graecum* L.)
    - (k) Celery seed (*Apium graveolens* L.)
  - (3) They shall come into force on the date of their publication in the Official Gazette.
2. **Definitions.**- In these rules, unless the context otherwise requires,-
  - (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 authorization 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 authorizing 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 5.
  - (f) "Schedule" means a Schedule appended to these rules.
3. **Grade designations.**-The Grade designations to indicate the quality of spices shall be as set out in column I of Schedule I to XXVIII.
4. **Quality.**-For the purpose of these rules, the quality and general characteristics of spices (whole and powder) shall be as given against each grade designation in columns and Schedules mentioned below:-

Columns	Schedules
(2) to (6)	XXVIII,
(2) to (7)	I, II, X, XXV and XXVII
(2) to (8)	IV, XI, XIV and XVI
(2) to (9)	VII, XIII, XVII, XIX, XX and XXIV
(2) to (10)	III, XV, XVIII, XXI, XXII and XXVI
(2) to (11)	VIII, IX and XII
(2) to (12)	V and VI

5. **Grade designation mark :-** The grade designation mark shall consist of "AGMARK Insignia" consisting of a design incorporating the certificate of authorization number, the word "AGMARK", name of commodity and grade designation resembling the design as set out in Schedule XXIX.

- 6. Method of packing:-**(1) Spices (whole and powder) shall be packed in gunny bags/jute bags, polywoven bags, poly pouches, cloth bags or other suitable packages which shall be clean, sound, free from insects, fungal infestation and the packing material shall be as permitted under the Prevention of Food Adulteration Rules, 1955 made under Section 23 of the Prevention of Food Adulteration Act, 1954 (37 of 1954).
- (2) Suitable lining of food grade polypropylene/polyethylene shall be used for packing of Spices (whole and powder) in gunny bags/jute bags, polywoven bags, cloth bags, paper bags and cardboard cartons;
  - (3) Containers and packaging material, shall be made of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or flavor to the product;
  - (4) Spices (whole and powder) shall be packed in pack sizes as per the instructions issued by the Agricultural Marketing Adviser from time to time;
  - (5) Each package shall contain Spices (whole and powder) of the same type and of the same grade designation;
  - (6) Graded material of small pack sizes of the same lot/batch and grade may be packed in a master container with complete details thereon along with grade designation mark;
  - (7) Each package shall be securely closed and sealed.
- 7. Method of Marking:-**(1) A 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 authorized by him in this behalf in accordance with Rule 11 of the General Grading and Marking Rules, 1988;
- (2) In addition to the grade designation mark, following particulars shall be Clearly and indelibly marked on each package:-
    - (a) Name and address of the packer;
    - (b) Place of packing/manufacturing;
    - (c) Date of packing;
    - (d) Lot/batch number;
    - (e) Grade;
    - (f) Season of harvest (in case of chilies only);
    - (g) Net weight;
    - (h) Maximum retail Price;
    - (i) Best before-----month-----year.
  - (3) The ink used for marking on packages shall be of such quality which may not contaminate the product;5-
  - (4) The authorized packer, may, after obtaining prior approval of the Agricultural Marketing Adviser or an officer authorized 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 indicating by the grade designation mark affixed to the graded packages in accordance with these rules.
- 8. Special conditions of certificate of authorization:-** In addition to the conditions specified under the sub-rule(8) of rule 3 of the General Grading and Marking Rules, 1988, the following shall be the special conditions of every certificate of authorization issued for the purpose of these rules:-
- (1) The authorized packer shall either set up his own laboratory or have access to an approved grading laboratory for testing 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's engaged in these operations shall be in sound health and free from any infectious, contagious or communicable diseases;
  - (3) The premises shall have adequate storage facilities with pucca floor and free from rodent and insect infestation;
  - (4) The authorized 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 authorized by him in this behalf from time to time.

**SCHEDULE I**

(see rules 3 and 4 )

Grade designations and quality of Turmeric (whole)

Grade Designation	Quality				
Special Characteristics					
	Organic extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, %(m/m) (Max.)	Defective rhizomes, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Curuminoid content % (m/m) ( Min.)
(1)	(2)	(3)	(4)	(5)	(6)
Special	0.8	0.2	3.0	12.0	2.0
Standard	1.5	0.5	5.0	12.0	Not specified
General Characteristics					
(7)					

- (1) Turmeric shall be primary or secondary rhizomes commercially called bulbs or fingers respectively of the plant *Curcuma longa* L;
- (2) Rhizomes may be in natural state or polished;
- (3) They shall not be artificially colored;
- (4) They shall be free from mould growth, living insects and practically free from dead insects, insects, insect fragments and rodent contamination;
- (5) They shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, Poisonous metals, naturally occurring Contaminants, Microbial load etc as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.
- (6) Lead chromate test shall be negative.

**Definitions:**

- (a) “Defective rhizomes” means shriveled rhizomes, internally damaged, hollow or porous rhizomes, rhizomes scorched by boiling and other types of damaged rhizomes.
- (b) “Inorganic extraneous matter” includes stones, particles of soil, dust, mud. and the like;
- (c) “Organic extraneous matter” includes all vegetable matter other than rhizomes.

**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 II**

(see rules 3 and 4 )

## Grade designations and quality of Turmeric Powder

<b>Grade Designation</b>	<b>Quality</b>				
<b>Special Characteristics</b>					
	<b>Moisture % (m/m) (Max.)</b>	<b>Total ash % (m/m) (Max.)</b>	<b>Acid insoluble ash ,% (m/m) . (Max.)</b>	<b>Curcuminoid content % (m/m) (Min.)</b>	<b>Starch % (m/m) (Max.)</b>
(1)	(2)	(3)	(4)	(5)	(6)
Special	10	7.0	1.5	2.0	60
Standard	12	9.0	1.5	Not specified	60
<b>General Characteristics</b>					
(7)					

- (1) Turmeric powder shall be prepared by grinding clean, dry Turmeric (*Curcuma longa* L) rhizomes.
- (2) It shall be ground to such a fineness that 98% of the product passes through a 300 micron sieve. It shall be labeled "Coarse Ground" when 98% of the product passes through 800 micron sieve.
- (3) It shall have its characteristic taste, flavour and free from musty odour.
- (4) It shall be free from any colouring matter, foreign starch and any other adulterant.
- (5) It shall be free from mould growth, living insects and practically free from dead insects, insect fragments and rodent contamination.
- (6) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue Poisonous metals, naturally occurring Contaminants or as per buyers requirements for export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.
- (7) Lead chromate test shall be negative.

**SCHEDULE III**

(see rules 3 and 4 )

Grade designations and quality of Chillies/Capsicums/Paprika

Grade Designation	Quality							
Special Characteristics								
	Organic extraneous matter % (m/m) (Max.)	Inorganic extraneous matter % (m/m) (Max.)	Unripe and marked fruits % (m/m) (Max.)	Broken fruits and fragments % (m/m) (Max.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Acid insoluble ash % (m/m) (Max.)	Capsaicinoid content % (m/m) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	0.8	0.2	2.0	5.0	10.0	7.0	1.25	0.3
Standard	4.0	1.0	5.0	15.0	12.0	8.0	1.25	Not specified
General Characteristics								
(10)								

- (1) Chillies/Capsicums/Paprika are dried pods (fruits with stalk of plants of genus Capsicum);
- (2) It shall have a characteristic strong odour;
- (3) It shall be free from mould growth, living insects and practically free from dead insects, insect fragments and rodent contamination, extraneous coloring matter, coating of mineral oil and other harmful substances;
- (4) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, Poisonous metals, naturally occurring Contaminants, Microbial load etc. as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions :**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Broken fruits” means         | Fruits which are broken during handling;  |
| (b) | “Fragments” means             | small pieces of fruits coming from broken fruits;   |
| (c) | “Inorganic extraneous matter” | includes stones, particles of soil/sand;  |
| (d) | “Marked fruits” means         | black or black stained fruits;  |
| (e) | “Organic extraneous matter”   | includes stalks, leaves and calyx pieces;   |
| (f) | “Unripe fruits” means         | Fruits not yet fully mature, the colour of which is different from that of the batch under consideration. |

- Note:**
- (1) Capsicum shall have a length of minimum 25 mm.
  - (2) For special grade capsaicinoid content shall be declared on the label.

**SCHEDULE IV**

(see rules 3 and 4 )

Grade designations and quality of ground (powdered fragmented Chillies/Capsicums/Paprika

<b>Grade Designation</b>	<b>Quality</b>					
<b>Special Characteristics</b>						
	<b>Moisture, % (m/m) (Max.)</b>	<b>Total ash, % (m/m) (Max.)</b>	<b>Acid insoluble ash, % (m/m) (Max.)</b>	<b>Crude fiber % (m/m) (Max.)</b>	<b>Non-volatile Ether extract % (m/m) (Min.)</b>	<b>Capsaicinoid content % (m/m) (Min.)</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	10.0	7.0	1.25	30.0	12.0	0.3
Standard	12.0	8.0	1.30	30.0	12.0	Not specified
<b>General Characteristics</b>						
(8)						

- (1) Ground Chillies/Capsicums/Paprika are the products obtained by grinding clean, dried, ripened fruits of whole Chillies/Capsicums/Paprika respectively. It can also be a mixture of Chillies, Capsicums and Paprika.
- (2) It shall be without any added coloring matter; and flavouring matter
- (3) It shall also be free from any extraneous or undesirable odour or flavor;
- (4) It shall be free from mould growth, living insects and practically free from dead insects, insect fragments, dirt and rodent contamination;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, Poisonous metals, naturally occurring Contaminants, Microbial load etc. as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

- Note:**
- (1) For special grade, capsaicinoid content shall be declared on the label.
  - (2) In standard grade, 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 V**

(see rules 3 and 4 )

Grade designations and quality of Processed Black Pepper (Whole)

Grade Designation	Quality									
	Special Characteristics									
	Organic extraneous matter % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Light berries % (m/m) (Max.)	Pinheads & broken berries % (m/m) (Max.)	Bulk Density, g/l (Min.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Non-volatile ether extract % (m/m) (Min.)	Volatile oil % (ml./100 gm) (Min.)	Piperine content % (m/m) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	0.8	0.2	5.0	4.0	490	11.0	6.0	6.0	2.5	4.0
Standard	1.2	0.3	10.0	4.0	470	12.0	7.0	5.5	2.0	2.0
General Characteristics										
(12)										

- (1) Black pepper shall be dried mature berries of *Piper nigrum* L. having an unbroken pericarp, brown to black in colour with wrinkled surface;
- (2) It shall be cleaned;
- (3) It shall be free from mould growth and living insects, and practically free from dead insects, insect fragments and rodent contamination;
- (4) It shall be free from added coloring matter & coating of mineral oil;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide/Pesticide residue, Poisonous metals, naturally occurring Contaminants, Microbial load etc. as specified by the Codes Alimentarius Commission or as per buyers requirements for Export purposes and Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions-**

- (a) "Broken berries" means berry that has been separated into two or more pieces;
- (b) "Inorganic extraneous matter" includes dust, stones, earth or any other inorganic foreign matter;
- (c) "Light berries" means berry that has reached an apparently normal stage of development but the kernel does not exist;
- (d) "Organic extraneous matter" means all materials other than black pepper berries, irrespective of whether they are of vegetable origin;
- (e) "Pinhead" means berry of very small size that has not developed;
- (f) "Processed black pepper" means pepper that has been cleaned.

- 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.) 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 VI**

(see rules 3 and 4 )

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

Grade Designation	Quality									
Special Characteristics										
	Organic Extraneous matter % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Light berries % (m/m) (Max.)	Pinheads & broken berries % (m/m) (Max.)	Bulk Density, g/l (Min.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Non-volatile ether extract % (m/m) (Min.)	Volatile oil % (ml. 100 gm) on dry basis (Min.)	Piperine content % (m/m) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Special	0.8	0.2	10	5	450	12.0	7.0	6.0	2.0	4.0
Standard	1.5	0.5	15	5	430	13.0	8.0	5.5	1.5	2.0
General Characteristics										
(12)										

- (1) Black pepper shall be dried mature berries of *Piper nigrum* L. having an unbroken pericarp, brown to black in colour with wrinkled surface;
- (2) It shall be uncleaned or partially cleaned.
- (3) It shall be free from mould growth and living insects, and practically free from dead insects, insect fragments and rodent contamination;
- (4) It shall be free from added colouring matter and coating of mineral oil.
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide/Pesticide residue, Poisonous metals, naturally occurring Contaminants, Microbial load etc. as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions-**

- |     |                               |   |
|-----|-------------------------------|---|
| (a) | “Broken berries” means        | berry that has been separated into two or more pieces;  |
| (b) | “Inorganic extraneous matter” | includes dust, stones, earth or any other inorganic foreign matter;                             |
| (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”   | all materials other than black pepper berries, which are of vegetable origin;                   |
| (f) | “Pinhead” means               | berry of very small size that has not developed;  |
| (g) | “Semi-Processed pepper” means | pepper that has undergone partial cleaning.   |

- 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 (Min.) for Special Grade and 500 gm/litre (Min.) for Standard Grade.

**SCHEDULE VII**  
(see rules 3 and 4 )

Grade designations and quality of Black Pepper Powder

Grade Designation	Quality						
Special Characteristics							
	Moisture, % (m/m) (Max.)	Total ash, %(m/m) (Max.)	Acid insoluble ash, %(m/m) (Max.)	Crude fiber, % (m/m) (Max.)	Non-volatile ether extract %(m/m) (Min.)	Volatile oil content %(ml/100gm) (Min.)	Piperine content %(m/m) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	11.0	6.0	1.2	17.5	6.0	1.5	4.0
Standard	12.0	8.0	1.2	18.0	5.5	1.0	2.0
General Characteristics							
(9)							

- (1) It shall be obtained by grinding Black Pepper berries;
- (2) It shall be ground to such a fineness that the whole of it passes through a 500 micron sieve. It can be ground to such a fineness that whole of it passes through 1000 micron sieve. In such case, the product should be labeled 'Coarse Powder';
- (3) It shall have odour characteristic of black pepper and shall be free from foreign odour and flavor;
- (4) It shall be free from any foreign matter, mould growth, living insects and practically free from dead insects, insect fragments and rodent contamination;
- (5) It shall be free from added coloring matter;
- (6) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE VIII**

(see rules 3 and 4 )

Grade designations and quality of Cardamom Whole Capsules

Grade Designation	Quality								
Special Characteristics									
	Organic Extraneous matter % (m/m) (Max.)	Inorganic extraneous matter % (m/m) (Max.)	Empty and malformed capsules per cent by count (Max.)	Immature & shrivelled capsules % (m/m) (Max.)	Blacks and splits per cent by count (Max.)	Mass in g/1 (Min.)	Moisture % (m/m) (Max.)	Total ash on dry basis % (m/m) (Max.)	Volatile oil % (ml. 100 gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	1.0	0.5	2.0	2.0	Nil	435	11.0	8.0	3.5
Standard	2.0	1.0	5.0	5.0	10.0	385	12.0	9.5	3.0
General Characteristics									
(11)									

- (1) Cardamom capsules shall be dried, nearly ripened fruits of *Elettaria cardamomum* (L).
- (2) Capsules shall be oblong in shape with a rounded part or three cornered and having ribbed appearance.
- (3) Capsules shall be well formed and contain sound seeds.
- (4) Capsules shall have characteristic odour and shall be free from foreign odour or flavors, including those of rancidity and mustiness.
- (5) Color of the capsules may be (a) Light Green (b) Green (c) Deep Green or (d) pale Brownish, Capsules shall be packed according to the color group and it shall be indicated on the label. At least 95% of the capsules shall correspond to the respective color group.
- (6) 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.
  - (a) Alleppey Green Extra Bold (AGEB) when retained on sieve 7.0 mm having holes of diameter
  - (b) Corg Green Extra Bold (CGEB) -do- 8.0"
  - (c) Alleppey Green Bold (AGB) -do- 6.0"
  - (d) Corg Green Bold (CGB) -do- 7.5"
  - (e) Alleppey Green Superior (AGS) -do- 5.0"
  - (f) Corg Green Superior (CGS) -do- 6.0"
- (7) Capsules shall be free from added coloring matter.
- (8) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination.
- (9) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>(a) "Blacks"</li> <li>(b) "Empty and Malformed capsules"</li> <li>(c) "Immature and Shriveled capsules"</li> <li>(d) "Inorganic extraneous matter"</li> <li>(e) "Organic extraneous matter"</li> <li>(f) "Splits"</li> </ol> | <p>includes capsules which are blackish to black in colour;</p> <p>capsules which have no seeds or are scantily filled with seeds;</p> <p>capsules which are not fully developed;</p> <p>includes stones, dust, earth or any other inorganic foreign matter;</p> <p>includes pieces of Calyx, stalk and foreign matter of plant origin;</p> <p>includes capsules which are open at corners for more than half the length.</p> |
|---|---|

**Note:-** Volatile oil content shall be determined on seeds obtained from the capsules.

**SCHEDULE IX**

(see rules 3 and 4 )

Grade designations and quality of Bleached or Half Bleached Cardamom Whole Capsules

Grade Designation	Quality								
	Special Characteristics								
	Organic Extraneous matter % (m/m) (Max.)	Inorganic extraneous matter % (m/m) (Max.)	Empty and malformed capsules (Max.)	Immature & shrivelled capsules % (m/m) (Max.)	Size ( Diameter of holes in mm. in the sieve on which retained)	Mass in g/1 (Min.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Volatile oil % (ml. 100 gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special Standard	1.0 2.0	0.5 1.0	Nil Nil	Nil Nil	8.5 5.0	360 300	11.0 12.0	8.0 9.5	3.5 3.0
General Characteristics									
(11)									

- (1) Cardamom Capsules shall be fully developed dried fruits of *Elettaria cardamomum* (L)
- (2) Capsules shall be oblong in shape with a rounded part or three cornered with skin ribbed or smooth;
- (3) Capsules shall be bleached and/or half bleached by Sulphur Dioxide and color shall range from pale cream to white;
- (4) Capsules shall be free from added coloring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:-**

- |   |  |
|---|--|
| (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”           | includes stones, dust, earth or any other inorganic foreign matter;        |
| (d) “Organic extraneous matter”             | includes exhausted or spent Ginger and all foreign matter of plant origin; |

**Note:-** Volatile oil content shall be determined on seeds obtained from the capsules.

**SCHEDULE X**

(see rules 3 and 4 )

## Grade designations and quality of Cardamom Seeds Powder

<b>Grade Designation</b>	<b>Quality</b>				
<b>Special Characteristics</b>					
	<b>Moisture % (m/m) (Max.)</b>	<b>Total ash ,%(m/m) (Max.)</b>	<b>Acid insoluble ash, %(m/m) (Max.)</b>	<b>Volatile oil %(ml/100gm) (Min.)</b>	<b>Crude fibre % (m/m) ( Max.)</b>
(1)	(2)	(3)	(4)	(5)	(6)
Special	11.0	7.0	2.5	3.5	10
Standard	13.0	8.0	3.0	3.0	12
<b>General Characteristics</b>					
(7)					

- (1) It shall be obtained by grinding the dried seeds of any variety of *Elettaria cardamomum*(L);
- (2) It shall have characteristic taste and flavour and free from foreign odour, rancidity and mustiness;
- (3) It shall be free from any adulterant and added colouring matter;
- (4) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination.;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XI**

(see rules 3 and 4 )

## Grade designations and definitions of quality of Cardamom Seeds

Grade Designation	Quality					
Special Characteristics						
	Organic Extraneous matter, % (m/m) (Max.)	Light seeds % (m/m) (Max.)	Mass in g/1 (Min.)	Moisture % (m/m) (Max.)	Total ash, % (m/m) (Max.)	Volatile oil, (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	0.5	2.0	675	11.0	7.0	3.5
Standard	1.5	5.0	625	13.0	8.0	3.0
General Characteristics						
(8)						

- (1) It shall be obtained by separating the seeds from the capsules of *Elettaria cardamomum*(L);
- (2) Cardamom seeds shall have characteristic odour and shall be free from foreign odour or flavour, including those of rancidity and mustiness;
- (3) Cardamom seeds shall be free from inorganic extraneous matter and added colouring matter;
- (4) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:-**“Light Seeds” – includes seeds brown or red in colour and immature and shriveled seeds;

- (a) “Organic Extraneous matter” – includes calyx pieces, stalk bits and any other foreign matter of plant origin.

**SCHEDULE XII**

(see rules 3 and 4 )

Grade designations and quality of Large Cardamom Capsules

Grade Designation	Quality								
Special Characteristics									
	Organic Extraneous matter ,% (m/m) (Max.)	Inorganic extraneous matter, %(m/m) (Max.)	Immature , shriveled and insect damaged capsules %(m/m) (Max.)	Empty and malformed capsules % (m/m) (Max.)	Mass in g/1 (Min.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Acid insoluble ash % (m/m). (Max.)	Volatile Oil % (ml/ 100 gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Special	0.8	0.2	3.0	5.0	350	12.0	8.0	2.0	2.0
Standard	4.0	1.0	5.0	8.0	300	12.0	8.0	2.0	1.0
General Characteristics									
(11)									

- (1) It shall be dried, nearly ripe to ripe fruits of *Amomum subulatum* Roxb.
- (2) Capsules shall be ovoid and more or less triangular shaped with a ribbed appearance.
- (3) It shall have characteristic taste and flavour and free from foreign odour, rancidity and mustiness,
- (4) It shall be free from visible dirt or dust.
- (5) It shall be free from added colouring matter.
- (6) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination.
- (7) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

Definitions:

- |     |  |   |
|-----|--|---|
| (a) | “Empty and Malformed capsules” means                       | capsules which are without seeds or are scantily filled with seeds; |
| (b) | “Immature and Shriveled and insect damaged capsules” means | capsules which are not fully developed or are damaged by insects;   |
| (c) | “Inorganic extraneous matter”                              | includes stones, dust, earth or any other inorganic foreign matter; |
| (d) | “Organic extraneous matter”                                | includes calyx, stalk and other organic matter of plant origin.     |

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

**SCHEDULE XIII**

(see rules 3 and 4)

## Grade designations and quality of Large Cardamom Seeds

Grade Designation	Quality						
Special Characteristics							
	Organic Extraneous matter, % (m/m) (Max.)	Light seeds/brown/red seeds, % (m/m) (Max.)	Insect damaged seeds, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Total ash, % (m/m) (Max.)	Acid insoluble ash, % (m/m) (Max.)	Volatile Oil, % (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	0.5	5.0	Nil	12.0	8.0	2.0	2.0
Standard	1.0	5.0	3.0	12.0	8.0	2.0	1.0
General Characteristics							
(9)							

- (1) It shall be obtained by decorticating the capsules of *Amomum subulatum* Roxb.;
- (2) It shall have characteristic taste and flavour and free from foreign odour, rancidity and mustiness;
- (3) It shall be free from visible dirt or dust;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:-**

- (b) "Light Seeds" – includes seeds which are brown or red in color, broken, immature and shriveled ;
- (c) "Organic Extraneous matter" – includes calyx, stalk, skin of capsules or other organic matter of plant origin.

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

**SCHEDULE XIV**

(see rules 3 and 4 )

Grade designations and quality of Large Cardamom Seed Powder

<b>Grade Designation</b>	<b>Quality</b>					
<b>Special Characteristics</b>						
	<b>Moisture, % (m/m) (Max.)</b>	<b>Total ash, %(m/m) (Max.)</b>	<b>Acid insoluble ash, %(m/m) (Max.)</b>	<b>Crude fibre, % (m/m) (Max.)</b>	<b>Non-volatile ether extract, %(m/m) (Min.)</b>	<b>Volatile oil, % (ml/100gm) . (Min.)</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	10.0	8.0	2.0	12.0	4.0	1.5
Standard	12.0	8.0	3.0	15.0	2.0	1.0
<b>General Characteristics</b>						
(8)						

- (1) It shall be obtained by grinding seeds separated from capsules of *Amomum subulatum* Roxb;
- (2) It shall have characteristic taste and flavour and free from foreign odour, rancidity and mustiness;
- (3) It shall be ground to such a fineness that it shall pass completely through a 1000 micron sieve;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XV**  
(see rules 3 and 4 )  
Grade designations and quality of Coriander (Whole)

Grade Designation	Quality							
Special Characteristics								
	Organic Extraneous matter ,% (m/m) (Max.)	Inorganic extraneous matter, %(m/m) (Max.)	Split fruits, % (m/m) (Max.)	Damaged, discoloured, shriveled, insect bored fruits %(m/m) (Max.)	Moisture, % (m/m) (Max.)	Total ash % (m/m) (Max.)	Acid insoluble ash ,%( m/m) (Max.)	Volatile Oil % (ml/100 gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	0.8	0.2	5.0	2.0	9.0	7.0	1.0	0.2
Standard	3.5	0.5	30.0	5.0	10.0	7.0	1.5	0.1
General Characteristics								
(10)								

- (1) Coriander (Whole) shall be dried mature fruit of *Coriandrum sativum* L.
- (2) It shall not contain any added coloring matter, or preservatives;
- (3) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;
- (4) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- |     |   |   |
|-----|---|---|
| (a) | “Damaged, discolored, shriveled, insect bored fruits” | includes whole or split fruits that are damaged, discolored or shriveled and fruits showing signs of partial or whole bores as a result of their having been eaten by weevils or other insects; |
| (b) | “Inorganic extraneous matter”                         | includes stones particles of soil and sand;   |
| (c) | “Organic extraneous matter”                           | All organic material other than Coriander seeds and includes all matter of vegetable origin;  |
| (d) | “Split fruits”  | Includes fruits which have been split longitudinally into two parts.  |

**Note:** The Volatile oil content should be determined immediately after grinding.

**SCHEDULE XVI**

(see rules 3 and 4 )

## Grade designations and quality of Coriander Powder

Grade Designation	Quality					
Special Characteristics						
	Moisture, % (m/m) (Max.)	Total ash, %(m/m) (Max.)	Acid insoluble ash, %(m/m) (Max.)	Crude fiber, % (m/m) (Max.)	Non-volatile ether extract %(m/m) (Min.)	Volatile oil % (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Special	9.0	6.5	1.0	25.0	15.0	0.10
Standard	10.0	7.0	1.5	28.0	12.0	0.05
General Characteristics						
(8)						

- (1) Coriander Powder shall be obtained by grinding clean, sound, dried and mature fruits of *Coriandrum sativum* L;
- (2) It shall be ground to such a fineness that it shall pass completely through a 500 micron sieve. However, for standard grade, 95% of it should pass through 1000 micron sieve;
- (3) It shall have a typical aroma and flavor characteristic of the spice and shall be free from musty odour;
- (4) It shall not contain any added coloring matter, preservatives or any foreign matter;
- (5) It shall be free from living insects and practically free from moulds, dead insects, insect fragments and rodent contamination;
- (6) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XVII**

(see rules 3 and 4 )

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

Grade Designation	Quality						
Special Characteristics							
	Size of rhizomes, (length in mm). (Min.)	Organic Extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Total ash, % (m/m) (Max.)	Calcium (as calcium oxide) % (m/m) (Max.)	Volatile Oil, % (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	20.0	1.5	0.5	12.0	8.0	1.1	1.5
Standard	15.0	1.5	0.5	13.0	8.0	1.1	1.0
General Characteristics							
(9)							

- (1) It shall be dried rhizomes *Zingiber officinale* Rose, in pieces, irregular in shape, pale brown in colour;
- (2) Its fibrous content shall be characteristic of the variety with peel not entirely removed and light pieces removed by garbling;
- (3) It shall have characteristic taste and flavour and shall not have a musty odour or a rancid or bitter taste;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (a) "Inorganic extraneous matter" includes dust, stones, earth or any other inorganic foreign matter.
- (b) "Organic extraneous matter" Includes exhausted or spent Ginger and all foreign matter of plant origin.

- 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 XVIII**

(see rules 3 and 4 )

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

Grade Designation	Quality							
Special Characteristics								
	Size of rhizomes (length in mm) (Min.)	Organic Extraneous matter % (m/m) (Max.)	Inorganic extraneous matter % (m/m) (Max.)	Very light pieces % (mm) (Max.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Calcium (as calcium oxide) % (m/m) (Max.)	Volatile Oil, %(ml/100 gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	20.0	1.5	0.5	4.0	12.0	8.0	1.1	1.5
Standard	15.0	1.5	0.5	6.0	13.0	8.0	1.1	1.0
General Characteristics								
(10)								

- (1) It shall be dried rhizomes of *Zingiber officinale* Rose, in pieces, irregular in shape, pale brown in colour;
- (2) Its fibrous content shall be characteristic of the variety with peel not entirely removed;
- (3) It shall have characteristic taste and flavour and shall not have a musty odour or a rancid or bitter taste;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (a) "Inorganic extraneous matter" includes dust, stones, earth or any other inorganic foreign matter.
- (b) "Organic extraneous matter" Includes exhausted or spent Ginger and all foreign matter of plant origin.

- 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 "Ungarbled Non-bleached Calicut" (NUGK) or "Ungarbled Non-bleached" (NUGC) depending upon its place of origin.

**SCHEDULE XIX**

(see rules 3 and 4 )

Grade designations and quality of Garbled bleached Ginger (Whole)

Grade Designation	Quality						
	Special Characteristics						
	Size of rhizomes, (length in mm). (Min.)	Organic extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Total ash % (m/m) (Max.)	Calcium (as calcium oxide) % (m/m) (Max.)	Volatile Oil % (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	20.0	1.5	0.5	12.0	12.0	2.5	1.5
Standard	15.0	1.5	0.5	13.0	12.0	4.0	1.0
General Characteristics							(9)

- (1) It shall be dried rhizomes of *Zingiber officinale* Rose, in pieces, irregular in shape, 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 characteristic taste and flavour and shall not have a musty odour or a rancid or bitter taste.
- (5) It shall be free from added colouring matter.
- (6) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination.
- (7) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (a) "Inorganic extraneous matter" includes dust, stones, earth or any other inorganic foreign matter.
- (b) "Organic extraneous matter" Includes exhausted or spent Ginger and all foreign matter of plant origin.

**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 XX**

(see rules 3 and 4)

Grade designations and quality of Ungarbled bleached Ginger (Whole)

Grade Designation	Quality						
Special Characteristics							
	Size of rhizomes (length in mm). (Min.)	Extraneous matter % (m/m) (Max.)	Very light pieces % (m/m) (Max.)	Moisture % (m/m) (Max.)	Total ash % (m/m) (Max.)	Calcium (as calcium oxide) % (m/m) (Max.)	Volatile Oil % (ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	20.0	2.0	4.0	12.0	12.0	2.5	1.5
Standard	15.0	2.0	6.0	13.0	12.0	4.0	1.0
General Characteristics							
(9)							

- (1) It shall be dried rhizomes of *Zingiber officinale* Rose, in pieces, irregular in shape, 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 characteristic taste and flavour and shall not have a musty odour or a rancid or bitter taste;
- (5) It shall be free from added colouring matter;
- (6) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;
- (7) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (a) "Organic extraneous matter" Includes exhausted or spent Ginger and all foreign matter of plant origin.

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

**SCHEDULE XXI**

(see rules 3 and 4 )

Grade designations and quality of Ginger Powder

Grade Designation	Quality							
Special Characteristics								
	Moisture, % (m/m) (Max.)	Total ash, % (m/m) (Max.)	Acid insoluble ash, %(m/m) (Max.)	Water soluble ash, %(m/m) (Min.)	Calcium (as calcium oxide) % (m/m) (Max.)	Alcohol soluble extract %(m/m) (Min.)	Cold water soluble extract %(m/m) (Min.)	Volatile Oil %(ml/100gm) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	12.0	8.0	1.0	1.9	1.1	5.1	11.4	1.5
Standard	13.0	8.0	1.0	1.7	4.0	4.5	10.0	1.0
General Characteristics								
(10)								

- (1) It shall be product obtained by grinding Ginger (Whole) or pieces;
- (2) It shall be grounded to such a fineness that whole of it passes through 1000 micron sieve;
- (3) It shall have characteristic taste and flavour and shall not have a musty odour or a rancid or bitter taste;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XXII**

(see rules 3 and 4 )

Grade designations and quality of Cumin (Whole)

Grade Designation	Quality							
<b>Special Characteristics</b>								
	<b>Organic extraneous matter, % (m/m) (Max.)</b>	<b>Inorganic extraneous matter, % (m/m) (Max.)</b>	<b>Insect Damaged, discoloured, weevilled immature seeds % (m/m) (Max.)</b>	<b>Moisture, % (m/m) (Max.)</b>	<b>Total ash, % (m/m) (Max.)</b>	<b>Acid insoluble ash, % (m/m) (Max.)</b>	<b>Non-volatile ether extract, % (m/m) (Min.)</b>	<b>Volatile Oil, % (ml/100gm) (Min.)</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	1.0	0.2	3.0	9.0	8.0	1.5	15.0	1.5
Standard	4.0	1.0	5.0	12.0	9.5	1.5	8.0	1.0
<b>General Characteristics</b>								
(10)								

- (1) It shall be dried seeds of *Cuminum cyminum* L;
- (2) Its flavour shall be characteristic, aromatic and not musty;
- (3) It shall be free from added colouring matter;
- (4) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions :**

- (a) "Insect Damaged, discoloured, weevilled, immature seeds"- includes broken, insect damaged, discoloured, shriveled and immature fruits.
- (b) "Inorganic extraneous matter" – includes stones, particles of soil, sand etc.
- (c) "Organic extraneous matter" – includes all seeds other than Cumin fruits and all other matter of animal origin.

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

**SCHEDULE XXIII**

(see rules 3 and 4 )

## Grade designations and quality of Cumin Powder

Grade Designation	Quality				
<b>Special Characteristics</b>					
	<b>Moisture % (m/m) (Max.)</b>	<b>Total ash %(m/m) (Max.)</b>	<b>Acid insoluble ash %(m/m) (Max.)</b>	<b>Non-volatile ether extract %(m/m) (Min.)</b>	<b>Volatile oil %(ml/100gm) (Min.)</b>
(1)	(2)	(3)	(4)	(5)	(6)
Special	9.0	8.0	1.5	15.0	1.5
Standard	12.0	9.5	1.5	8.0	1.0
<b>General Characteristics</b>					
(7)					

- (1) Cumin Powder shall be obtained by grinding dried Cumin (Whole);
- (2) It shall be ground to such a fineness that it shall pass completely through 1000 micron sieve.
- (3) Its flavour shall be characteristic, aromatic and not musty;
- (4) It shall be free from added colouring matter or any other foreign matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XXIV**

(see rules 3 and 4 )

Grade designations and quality of Fennel (Whole)

Grade Designation	Quality						
Special Characteristics							
	Organic extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Broken damaged seeds, % (m/m) (Max.)	Immature, shriveled, discoloured, blackened seeds, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Volatile Oil, % (ml/100 gm) (Min.)	Crude fibre, % (m/m) (Max.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Special	1.0	0.2	1.0	2.0	10.0	2.0	11.0
Standard	4.0	0.5	4.0	6.0	12.0	1.0	15.0
General Characteristics							
(9)							

- (1) Fennel seeds shall be dried fruits of *Foeniculum vulgare* Mill;
- (2) It shall have a characteristic odour and a pleasant aromatic flavour characteristic of the spice;
- (3) It shall be free from mustiness and other foreign flavour;
- (4) It shall be free from added colouring matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (a) “Broken damaged seeds” means - seeds which are damaged, broken or which have been bored or attacked by weevils or other insects;
- (b) “Immature, shriveled, discoloured seeds” means – seeds which have not developed properly or which have been discoloured or blackened;
- (c) “Inorganic extraneous matter” – includes dust, stones, earth or any other inorganic foreign matter;
- (d) “Organic extraneous matter” – includes straw or chaff, stalks, stems, seeds from other plants and any other organic foreign matter.

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

**SCHEDULE XXV**

(see rules 3 and 4 )

## Grade designations and quality of Fennel Powder

Grade Designation	Quality				
<b>Special Characteristics</b>					
	<b>Moisture, % (m/m) (Max.)</b>	<b>Total ash, %(m/m) (Max.)</b>	<b>Acid insoluble ash, %(m/m) (Max.)</b>	<b>Volatile oil %(ml/100m) (Min.)</b>	<b>Crude fibre %(m/m) (Max.)</b>
(1)	(2)	(3)	(4)	(5)	(6)
Special	10.0	9.0	1.5	1.5	11.0
Standard	12.0	9.0	2.0	1.0	15.0
<b>General Characteristics</b>					
(7)					

- (1) Fennel seeds shall be obtained by grinding dried Fennel (Whole);
- (2) It shall be ground to such a fineness that it shall pass completely through a 800 micron sieve;
- (3) Its flavour shall be characteristic, aromatic and not musty;
- (4) It shall be free from added colouring matter or any other foreign matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XXVI**

(see rules 3 and 4 )

Grade designations and quality of Fenugreek (Whole)

Grade Designation	Quality							
Special Characteristics								
	Organic extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Damaged and insect bored seeds, % (m/m) (Max.)	Moisture, % (m/m) (Max.)	Total ash, % (m/m) (Max.)	Acid insoluble ash, % (m/m) (Max.)	Cold water soluble extract, % (m/m) (Min.)	Crude fibre, % (m/m) (Max.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Special	0.5	0.2	0.5	10.0	5.0	1.5	30.0	15.0
Standard	2.0	0.5	1.0	10.0	7.0	2.0	30.0	18.0
General Characteristics								
(10)								

- (1) Fenugreek (Whole) shall be dried mature seeds of *Trigonella foenum graecum* L;
- (2) It shall be free from mustiness, any off-flavours or other typical taste, odour or flavour;
- (3) It shall be free from added colouring matter;
- (4) It shall be free from mould growth and living insects and practically free from dead insects, insect fragments and rodent contamination;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- |     |                                  |  |
|-----|----------------------------------|--|
| (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”    | Includes dust, stones, earth or any other inorganic foreign matter;                                    |
| (c) | “Organic extraneous matter”      | includes straw or chaff, stalks, stems, seeds other Fenugreek and any other organic foreign matter.    |

**Note:** When fragmented Fenugreek seeds are graded, the words ‘Fragmented Fenugreek’ shall be clearly marked on the label.

**SCHEDULE XXVII**

(see rules 3 and 4 )

Grade designations and quality of Fenugreek Powder

Grade Designation	Quality				
Special Characteristics					
	Moisture % (m/m) (Max.)	Total ash %(m/m) (Max.)	Acid insoluble ash %(m/m) (Max.)	Crude fibre %(m/m) (Max.)	Cold water soluble extract %(m/m) (Min.)
(1)	(2)	(3)	(4)	(5)	(6)
Special	10.0	5.0	1.5	15.0	30.0
Standard	10.0	7.0	2.0	18.0	30.0
General Characteristics					
(7)					

- (1) Fenugreek Powder shall be obtained by grinding dried and ripened seeds of *Trigonella foenum graecum* L;
- (2) It shall be ground to such a fineness that it shall pass completely through a 1000 micron sieve;
- (3) It shall be free from off-flavours, mustiness and rancidity;
- (4) It shall be free from added colouring matter or any other foreign matter;
- (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, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**SCHEDULE XXVIII**

(see rules 3 and 4 )

Grade designations and quality of Celery Seeds

Grade Designation	Quality			
Special Characteristics				
	Organic extraneous matter, % (m/m) (Max.)	Inorganic extraneous matter, % (m/m) (Max.)	Damaged and edible foreign seeds, %(m/m) (Max.)	Moisture, % (m/m) (Max.)
(1)	(2)	(3)	(4)	(5)
Special	0.4	0.1	1.5	10.0
Standard	1.0	0.5	2.5	10.0
General Characteristics				
(6)				

- (1) Celery seeds shall be dried and matured fruits apium graveolens.
- (2) It shall be free from visible moulds, living insects and practically free from dead insects, insect fragments and rodent contamination;
- (3) It shall be free from any added colouring matter;
- (4) Its flavour shall be characteristic, aromatic and not musty;
- (5) It shall comply with restrictions in regard to Aflatoxins, Metallic Contaminants, Insecticide or Pesticide residue, poisonous metals, naturally occurring Contaminants, Microbial load and the like as specified by the Codex Alimentarius Commission or as per buyers requirements for Export purposes and the Prevention of Food Adulteration Rules, 1955 for domestic trade.

**Definitions:**

- (b) “Inorganic extraneous matter” includes dust, stones, earth or any other inorganic foreign matter;
- (c) “Organic extraneous matter” includes straw or chaff, stalks, stems, seeds from other Plants and any other organic foreign matter.

**SCHEDULE XXIX**

(See Rule 5)

(Design of Agmark insignia)



Name of Commodity.....

Grade.....

**Note :** Rules were published in the Gazette of India, Part II, Section 3, sub-section (i) dated 21-7-2005 vide G.S.R. 257. Dated 30-7-2005.

