

SCHEDULE - I A

GRADE SPECIFICATIONS OF WHOLE PULSES

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass).

Commodity	Foreign Matter		Other food grains	Damaged grain	Weevilled grains	Immature/shrivelled	Brokens/Slightly damaged	Admixture of variety	Maximum Moisture	Total sound grains (Minimum)	Other required quality characteristics of the commodity
	Organic Tolerance	Inorganic Tolerance									
Greengram (Hindi - Moong)	0.75	0.25	3	2	2	3	4	6	12-14	87	a) Dried mature seeds of <i>Phaseolus aureus</i> . b) Have uniform size, shape and bright green (Chamki) in colour. c) Well filled seeds with smooth surface, sound, dry, sweet, hard, clean, wholesome and free from moulds, insects, obnoxious smell, discolourations, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule. d) Grain shall be bold with a minimum of 3.00 mm in thickness breadth wise. (5% less in size is tolerable)
Bengalgram bold (Hindi - Bedi Chana)	0.75	0.25	1.5	1.5	2	3	2	7.5	12 - 14	91	a) Dried mature seeds of <i>Cicer arietinum</i> . b) Have uniform size, shape and uniform redish brown or dark brown in colour c) Shall be sound, sweet, dry, hard, clean, wholesome and free from moulds, insects, obnoxious smell, discolouration, admixture of deleterious substance and all other impurities except to the extent indicate in the schedule. d) Grain shall be with minimum 6 mm thickness breadth wise. (10 % less in size is tolerable)
Cow pea (Hindi - Lobia)	0.75	0.25	2	2	2	3	4	6	12 - 14	88	a) Dried mature seeds of <i>Vigna sinensis</i> . b) Have uniform size, shape and light brown to deep brown in colour. c) Shall be sound, dry, hard, clean, wholesome and free from moulds, insects, obnoxious smell, discolouration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule. d) Grain shall be with a minimum of 5.00 mm in thickness breadth wise (+/-10 % in size is tolerable)
Wheat (Hindi - Ghehum)	0.75		2	2	3	4	6	15	12	-	a) Dried grains of <i>Triticum vulgare</i> or <i>Triticum durum</i> . b) Have uniform size, shape and colour c) Shall be sweet, hard, clean, wholesome and free from moulds, weevils, obnoxious smell, discolouration, admixture of deleterious substances and all other impurities to the extent as indicated in the schedule.

Packing and Marking: All the items shall be packed in clean and sound gunny jute / poly woven/ cloth bags. The bags shall be free from fungal or insect infestation and shall be free from any undesirable smell. Each bag shall be marked as specified in the tender form and / or any other marking as required under the standards of weight and measures rules 1977 and the Prevention of Food Adulteration Act 1954 and the Rules framed there under.

SCHEDULE - I B

GRADE SPECIFICATIONS OF SPLIT PULSES

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass)

Commodity	Maximum Foreign Matter		Varietal Admixture	Damaged	Immature / shrivelled	Dehusked	Maximum Moisture	Broken/ Split seeds	Slightly damaged	Other Edible seeds	Weeviled	Total Sound grains (minimum)	Other required quality characteristics of the commodity.
	Organic	Inorganic											
Blackgram (washed) (Urid dhuli)	0.75	0.25	7.5	1	2	1	12 -14	4	1	0.5	1	93	a) The whole, husked(washed) seed of <i>Phaseolus mungo</i> . b) Shall be full pea (endosperm intact) of uniform size, shape and off white in colour. c) Shall be sound, sweet, hard, dry, clean, wholesome, free from moulds, insects, obnoxious smell, discoloration, admixture of deleterious substances, white powder (talc/chalk) and all other impurities except to the extent indicated in the schedule. d) Size of the grain shall not be less than 3 mm breadth wise (5% less in size is tolerable)
Split Blackgram (Urid dhal)	0.75	0.25	5	1	3	-	12 - 14	4	2	1	1	90	a)The split, dehusked (with husk) seed of <i>Phaseolus mungo</i> . b) Half pea (single endosperm) of uniform size, shape, black colour at the dehusked side and off white colour at the split side. c) Shall be sound, dry, sweet, hard, clean, wholesome, free from moulds, insect, obnoxious smell, discoloration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule d) Grain shall be 3 mm dia breadth wise (+/-10 % less in the size is tolerable)
Black gram Dhal (washed) (Urd dhal)	0.75	0.25	5	1	2	1	12 -14	4	1	0.5	1	90	a) The Split, washed (Without Husk) seed of <i>Phaseolus mungo</i> . b) Shall be half pea (endosperm single) of uniform size, shape and off white in colour. c) Shall be sound, sweet, hard, dry, clean, wholesome, free from moulds, insects, obnoxious smell, discoloration, admixture of deleterious substances, white powder (talc/chalk) and all other impurities except to the extent indicated in the schedule. d) Size of the grain shall not be less than 3 mm breadth wise (5% less in size is tolerable). It shall also comply with PFA standards as amended from time to time.
Split Red Gram (Toor dhal)	0.75	0.25	4	2	3	2	12 - 14	3	2	0.5	2	90	a)Split and husked (washed) seeds of <i>Cajanus indicus</i> b) shall be half pea (single endosperm), having uniform size, shape with bright yellow in colour. c)Shall be sound, sweet, hard, dry, with smooth surface, clean, wholesome, free from all artificial colours, moulds, insects, obnoxious smell, discoloration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule . d) Size of the grain shall be minimum 5.0 mm - dia (+/-10 % in size is tolerable)
Split Peas (Mattar dhal) (Peas dhal)	0.75	0.25	4	2	3	2	12 - 14	3	2	0.5	2	86	a) Split, husked (washed) seeds of <i>Pisum sativum</i> . b) Shall be half pea (single endosperm), having uniform size, shape, bright yellow in colour with smooth surface. (c) Shall be sound, sweet, hard, dry, clean, wholesome, free from moulds, insects, artificial colours, obnoxious smell, discoloration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule. d) Size of the grain shall not be less than 5 mm dia (-10% in size is tolerable)
Toordhal (FATKA)	0.5	0.1	4	1	1	1	12	2	Nil	Nil	Nil	95	a)Split and husked (washed) seeds of <i>Cajanus indicus</i> b) shall be half pea (single endosperm), having uniform size & shape with bright yellow in colour with inner side slightly concave in shape. c)Shall be sound, sweet, hard, dry, with smooth surface, clean, wholesome, free from all artificial colours, moulds, insects, obnoxious smell, discoloration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule . d) Size of the grain shall be minimum 6.0 mm - dia (+/-10 % in size is tolerable) and shall comply with Food Safety Standards Act 2006 (PFA Act)

For accidental errors, a tolerance of 0.5 % over and above the tolerance specified is premissable

Saleability, consumer preferences and good appearance will be the over riding focus.

*1 Moisture percentage upto 14 may be tolerated depending on weather conditions in the State of origin, transit and at destination

SCHEDULE - I C (i)

GRADE SPECIFICATIONS OF SPICES AND OIL SEEDS

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass)												
Commodity	(Extraneous matter) Foreign Matter	Varietal Admixture	Unripened & marked fruits*	Immature shrivelled Atrophied	Insect Damaged (weevilled)	Moisture	Damaged/ Discoloured/ shrivelled/ immature	Split seeds	Other Edible seeds	Broken/ loose seeds & fragments	Total Sound grains (minimum)	Other required quality characteristics of the commodity.
	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	Tolerance	
Chillies (Hindi - Lal Mrich) AC Guntur Sannam General	1	6	2	NA	1	11	NA	NA	NA	5	92	a) The dried, ripe, whole fruits of Capsicum annum. b) Have the characteristic shape, colour, length, pungency, seed contents c) Free from foreign taste and flavour including mustiness and rancidity, d) Free from visible moulds, living and dead insects or insect fragments, rodent contamination and be in good merchantable condition. e) Free from extraneous colouring material, coating of oil and any other harmful material. f) Colour shall be shining light red or shining deep red. g) Length of the pods shall be minimum 5 cms long. Salmonella shall be absent and shall conform to PFA amended from time to time. **Unripened fruits** means- fruits not yet fully mature, the colour of which is different from that of the batch under consideration. "Marked fruits" , means black or black stained fruits
Coriander (Hindi - Dhania)	1	4	NA	NA	1	9	1*	10	NA	NA	88	a) The dried, mature seed of Coriandrum sativum. b) Shall be in good merchantable condition, having uniform size, shape colour ranging from greenish yellow to yellowish brown with the characteristic pleasant taste, flavour, aroma and free from any musty odours. c) Shall be sound, dry, clean, wholesome, free from moulds, living and dead insects or insect fragments, rodent contamination, obnoxious smell, discoloration, admixture of deleterious substances, colouring agents and other impurities except to the extent indicated in the schedule. Product shall be free from added colouring matter d) Size of the seed shall not be more than 4.00 mm breadth wise /diameter. Salmonella shall be absent and shall conform to PFA amended from time to time. * In coriander damaged and discoloured alone shall be-1%
Cuminseed (Hindi - Jeera)	1.5	Nil	NA	NA	1	10	5	NA	NA	NA	94	a) The dried mature seeds of Cuminum cyminum b) Having uniform size, shape and colour with the characteristic pleasant taste, flavour and aroma, free from any musty odours. c) Shall be sound, dry, sweet, clean, wholesome, free from moulds, living and dead insects or insect fragments, rodent contamination, obnoxious smell, discoloration, admixture of deleterious substances, harmful foreign matter and all other impurities except to the extent indicated in the schedule. Salmonella shall be absent and shall conform to PFA amended from time to time
Fenugreek (Hindi - Methi)	2	Nil	NA	3	1	10	NA	NA	1.5	NA	94.5	a) Dried mature seeds of Trigonella foenumgraecum. b) Having uniform size, shape and colour brownish yellow characteristic of the type and variety. c) Be sound, dry, sweet, clean, wholesome, having characteristic pleasant taste, flavour and aroma, free from moulds, living and dead insects or insect fragments, rodent contamination, obnoxious smell, discoloration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule. Product shall be free from added colouring matter. Salmonella shall be absent and shall conform to PFA amended from time to time
Mustard (Hindi - Rai/ Sarson)	2	10	NA	2	1	7	NA	NA	NA	NA	97	a) The dried matured seeds of Brassica compastris. b) Shall be of uniform size, shape, dark brown/black in colour, clean, dry, wholesome, free from moulds, living and dead insects or insect fragments, rodent contamination, musty odour, discoloration, admixture of deleterious substances. c) Shall be free from harmful seeds such as argemone seeds and all other impurities except to the extent indicated in schedule. Product shall be free from added colouring matter d) Size of the seed shall be minimum 2 mm dia. Salmonella shall be absent and shall conform to PFA amended from time to time * In mustard damaged/shrivelled(atrophied)-2%
<p>a) <u>Foreign Matter</u> - Organic and Inorganic matter other than foodgrains such as dust, lumps of earth, stones, iron/metal particles mud, chaff, straw, weeds, seeds and non foodgrains. b) <u>Damaged grain</u> - Grain/seed/pods internally discoloured and spoiled by natural or unnatural factors such as moisture, fungi, insects etc. c) <u>Weevilled Grains</u> - Grains that are partially or wholly bored or eaten by insects. d) <u>Immatured Grains</u> - Kernels or pieces of kernels that are not properly developed. e) <u>Shrivelled Grains</u> - Immature, blighted or withered grains generally with wrinkled surface which gives a bad appearance. f) <u>Slightly Damaged grain</u> - Grain superficially damaged, tip or skin is affected living the interior practically sound and fit for consumption. g) <u>Admixture</u> - An inferior variety of the same grain or variety of different size or colour or maturity period shall constitute the admixture or varietal admixture. h) <u>Discoloured</u> - Grains with superficial change of colour due to natural reasons with out affecting the interior. i) Total sound grains:- The grains that are not affected with the above refractions (including admixture and broken). saleability, consumer preferences and good appearance will be the over riding focus.</p>												

SCHEDULE - I C (ii)

GRADE SPECIFICATIONS OF SPICES

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass)

Commodity	Maximum Foreign Matter		Maximum Varietal Admixture	Damaged	Dehusked	Broken	Slightly Damaged	Other Edible Seeds	Weevilled	Moisture	Immature / Shrivelled	Total Sound grains (mini.)	Other required quality characteristics of the commodity.
	Organic	Inorganic											
Bedagi Red Chillies (Bedagi Piriyan/ Kashmiri)	1%		4	2		4	3	2		11.5-12%	2	90	a) The dried, ripe, whole pods of the commonly termed variety – 'BEDAGI' of Capsicum frutescence (b) Have the characteristic twisted shape, colour, length, pungency, seed contents normal to the variety.(c) Free from foreign taste and flavour including mustiness and rancidity.(d) Free from visible moulds or insects and be in good merchantable condition. (e)Free from extraneous colouring material, coating of oil and any other harmful substances. (f) Colour shall be deep red with minimum 6 cm length of the pods.

SCHEDULE - I C (iii)

GRADE SPECIFICATIONS OF COMPOUNDED ASAFOETIDA (BANDHAM HING)

Commodity	Total ash percent by weight	Ash insoluble in dilute HCL	Alcoholic extract with 90percent	Moisture percent by weight (Maximum)	Other required quality characteristics of the commodity.
Asafoetida (Bandham Hing)	10	1.5	5	12%	Asafoetida - Oleo gum resin obtained from the rhizome and roots of Ferula rubricaulis and other species of Ferula. Compounded Asafoetida (Bandhani Hing) shall:(a) be made by blending one or more varieties of asafoetida (Irani or Pathani hing or both) and gum arabic with edible starches or edible cereal flour, having characteristics pleasant taste, flavour and aroma (b) be free from colophony resin, galbanum resin, ammomacum resin, any other foreign resin, coal tar dyes and mineral pigments and any other foreign matter (c) be free from insect and fungus attack, rodent contamination and foreign odour (d) Colour shall be light brown to brown for Asafoetida cake and Off white for Asafoetida powder (e) Should be packed in 50gm packets/container

SCHEDULE I D (i)

GRADE SPECIFICATIONS OF SUGAR

Commodity	Required quality characteristics of the commodity.
Refined Sugar	(a) Shall be the white crystallised sugar obtained by refining plantation sugar (b) shall be Grade-S30 conforming to IS-498-1970 (c) Extraneous matter shall not exceed 0.05 percent by weight (d) Moisture shall not be more than 0.5 percent (when heated at $105 \pm 1 \text{ } ^\circ\text{C}$ for 3 hours) (e) Minimum sucrose content shall be 99.5 percent by weight (f) Sugar may be packed in sound jute gunnies.

SCHEDULE I D (ii)

GRADE SPECIFICATIONS OF JAGGERY

Commodity	Required quality characteristics of the commodity.
Jaggery (Ball / Achuvellam)	(a) Shall be manufactured from the concentrated juice of sugar cane plant, <i>Sacharum officinarum</i> . (b) Shall be either granular or smooth prepared under clean and hygienic condition. (c) Shall be free from extraneous matter such as dirt and impurities (the combined total of which shall not exceed 1% by weight). (d) Shall have the characteristic shape and hard to press/touch. (e) Shall be dry without any superficial sign of sweating or syrup formation. (f) Shall be sweet to taste, without any sour, salty or other objectionable taste/flavor. (g) Colour shall be cream, light golden to dark golden or light brown. (h) Average weight of One Piece shall be about 120gm for ball variety and 20 gm for Achuvallam (\pm) 20% difference is tolerable. (i) Moisture shall be not exceed 10% by weight.

SCHEDULE I D (iii)

GRADE SPECIFICATIONS OF VARIOUS NON-SORTEX VARIETIES OF MILLED, COMMON, BOILED RICE

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass).

Commodity	Foreign Matter Tolerance	Damaged /Slightly Damaged grain Tolerance	Discoloured Tolerance	Immature/ shrivelled Tolerance	Brokens/ Fragments Tolerance	Varietal Admixture Tolerance	Maximum Moisture Tolerance	Other required quality characteristics of the Variety
Kuruvai Rice (Par Boiled Rice)	0.5	1	1	1	5	5	14	a) Size - short Bold with a length / breadth ratio of approx less than 1.8. (b) Colour shall be light golden yellowish with light reddish tinge having elliptical shape. (c) Parboiled rice with shiny texture, aroma, taste, characteristics of Kuruvai variety
Bodhana (Par Boiled Rice)	0.5	1	1	1	5	5	14	(a) Size, flavour and taste shall be characteristic of the variety in trade. (b) medium bold variety (c) With light golden yellow in colour.
Raw Rice	0.5	2	3	Chalky grains 5	25	8	14	(a) Colour shall be opaque and papery white. (b) Uniform slender in shape, taste and flavour characteristics of raw rice (c) length and breadth ratio shall be approx 2.5 with non-smooth surface. (d) quality should be non-sticky on cooking.

*Rice both boiled/raw shall be the dried mature seeds of *Oryza sativa* (b) Shall have uniform size, shape and colour and in good merchantable condition. (c) Be sweet, hard, clean, wholesome and free from moulds, weewils, obnoxious smell, discolourations, admixture of deleterious substances and all other impurities except to the extent indicated in schedule. (d) Shall not be artificially coloured and shall be free from polishing agents. (e) Shall conform to the requirements laid down under Prevention of Food Adulteration Act, 1954 and rules framed under 1955 as amended from time to time.*

- The Varietal characteristics, features, taste, appearance etc of each of the rice variety/ ecotype should conform to the features of the same in the normal rice trade.

SCHEDULE I D (iv)

GRADE SPECIFICATIONS OF VARIOUS SORTEX VARIETIES OF MILLED, COMMON, BOILED RICE

Tolerance = Maximum refractions tolerated, beyond which stock will not be accepted. Refractions: (Percentage by weight/mass).

Commodity	Varietal Admixture	Maximum Moisture	Other required quality characteristics of the Variety	
				Tolerance
Kuruvai Rice (Par Boiled Rice)	5	14	a) Size - short Bold with a length / breadth ratio of approx less than 1.8. (b) Colour shall be light golden yellowish with light reddish tinge having elliptical shape. (c) Parboiled rice with shiny texture, aroma,taste, characteristics of Kuruvai variety	
Bodhana (Par Boiled Rice)	5	14	(a) Size, flavour and taste shall be characteristic of the variety in trade. (b) medium bold variety (c) With light golden yellow in colour.	
Raw Rice	8	14	(a) Colour shall be opaque and papery white. (b) Uniform slender in shape, taste and flavour characteristics of raw rice (c) length and breadth ratio shall be approx 2.5 with non-smooth surface. (d) quality should be non-sticky on cooking.	
Jaya (Andhra Pradesh)- Parboiled	5	14	a) Size-approx double the length than breadth and medium bold . (b) Length of the grain shall be less than 6mm (c) Length/Breadth ratio approx 2.0 to 2.3 (d) Colour - light cream (e) characteristic aroma and taste of Jaya variety commonly called as A.P.Jaya in Kerala. (f) Par boiled rice with smooth shiny texture having uniform breadth.	
Ponni (Par Boiled)	5	14	(a) Short slender type with length less than 5.5mm. Length-breadth ratio approx 2.5 and creamy white in colour. (b) Abdominal white absent in double boiled. (c) Tapering ends, dull non shiny texture with characteristic taste and flavour of Ponni rice.	
Surekha (Par Boiled Rice) from Andhra Pradesh.	5	14	a) Size-approx double the length than breadth and medium bold . (b) Length of the grain shall be 6mm and above (c) Length/Breadth ratio 2.2 (d) Colour - light cream (e) Tips tapering, characteristics of the variety called Surekha.	
Matta Rice Vadi / Unda	Red grains 0.5	Nil	14	a) Shall be dried mature kernels of Oryza sativa. (b) shall be sortex grade of good food value having uniform size, shape and colour. (c) Shall be sweet, hard clean, wholesome and free from moulds, weevils, obnoxious smell, discolouration, admixture of deleterious substances and all other impurities except to the extent indicated in the schedule. (d) Resultant rice from the paddy cultivated and harvested in Kerala during the current season from characteristic matta varieties.

Other refractions should be "NIL"

- *Rice both boiled/raw shall be the dried mature seeds of Oryza sativa (b) Shall have uniform size, shape and colour and in good merchantable condition. (c) Be sweet, hard, clean, wholesome and free from moulds, weevils, obnoxious smell, discolourations, admixture of deleterious substances and all other impurities except to the extent indicated in schedule. (d) Shall not be artificially coloured and shall be free from polishing agents. (e) Shall conform to the requirements laid down under Prevention of Food Adulteration Act,1954 and rules framed under 1955 as amended from time to time.*
- The Varietal characteristics, features, taste, appearance etc of each of the rice variety/ ecotype should conform to the features of the same in the normal rice trade.