

UNIFORM SPECIFICATION FOR GRADE 'A' & 'COMMON' RICE

(MARKETING SEASON 2013-2014)

Rice shall be in sound merchantable condition, sweet, dry, clean, wholesome, of good food value, uniform in colour and size of grains and free from moulds, weevils, obnoxious smell, admixture of unwholesome poisonous substances, *Argemone mexicana* and *Lathyrus sativus* (Khesari) in any form, or colouring agents and all impurities except to the extent in the schedule below. It shall also conform to Food Safety and Standard norms:

SCHEDULE OF SPECIFICATION

S. No	Refractions		Maximum Limit (%)	
			Grade 'A'	Common
1.	Brokens*	Raw	25.0	25.0
		Parboiled/single parboiled rice	16.0	16.0
2.	Foreign Matter**	Raw / Parboiled / single parboiled rice	0.5	0.5
3.	Damaged # / Slightly Damaged Grains	Raw	3.0	3.0
		Parboiled/ single parboiled rice	4.0	4.0
4.	Discoloured Grains	Raw	3.0	3.0
		Parboiled/ single parboiled rice	5.0	5.0
5.	Chalky Grains	Raw	5.0	5.0
6.	Red Grains	Raw/Parboiled/ single parboiled rice	3.0	3.0
7.	Admixture of lower class	Raw/ Parboiled/ single parboiled rice	6.0	-
8.	Dehusked Grains	Raw/ Parboiled/ single parboiled rice	12.0	12.0
9.	Moisture content @	Raw/ Parboiled/ single parboiled rice	14.0	14.0

* Not more than 1% by weight shall be small broken.

** Not more than 0.25% by weight shall be mineral matter and not more than 0.10% by weight shall be impurities of animal origin.

Including pin point damaged grains.

@ Rice (both Raw and Parboiled/Single Parboiled) can be procured with moisture content upto a maximum limit of 15% with value cut. There will be no value cut up to 14%. Between 14% to 15% moisture, value cut will be applicable at the rate of full value.

NOTES APPLICABLE TO THE SPECIFICATION OF GRADE 'A' AND 'COMMON' VARIETIES OF RICE.

1. The definition of the above refractions and method of analysis are to be followed as given in Bureau of Indian Standard "Method of analysis for Foodgrains" No's IS: 4333 (Part-I):1996 and IS: 4333 (Part- II): 2002, "Terminology for Foodgrains" IS: 2813-1995 as amended from time to time. Dehusked grains are rice kernels whole or broken which have more than ¼th of the surface area of the kernel covered with the bran and determined as follows:-

ANALYSIS PROCEDURE:- Take 5 grams of rice (sound head rice and brokens) in a petri dish (80X70 mm). Dip the grains in about 20 ml of Methylene Blue solution (0.05% by weight in distilled water) and allow to stand for about one minute. Decant the Methylene Blue solution. Give a swirl wash with about 20 ml. of dilute hydrochloric acid (5% solution by volume in distilled water). Give a swirl wash with water and pour about 20 ml of Metanil Yellow solution (0.05% by weight in distilled water) on the blue stained grains and allow to stand for about one minute. Decant the effluent and wash with fresh water twice. Keep the stained grains under fresh water and count the dehusked grains. Count the total number of grains in 5 grams of sample under analysis. Three brokens are counted as one whole grain.

CALCULATIONS:

$$\text{Percentage of Dehusked grains} = \frac{N \times 100}{W}$$

Where N = Number of dehusked grains in 5 grams of sample

W= Total grains in 5 grams of sample.

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2. The Method of sampling is to be followed as given in Bureau of Indian Standard "Method of sampling of Cereals and Pulses" No IS: 14818-2000 as amended from time to time.
 3. Brokens less than 1/8th of the size of full kernels will be treated as organic foreign matter. For determination of the size of the brokens average length of the principal class of rice should be taken into account.
 4. Inorganic foreign matter shall not exceed 0.25% in any lot, if it is more, the stocks should be cleaned and brought within the limit. Kernels or pieces of kernels having mud sticking on surface of rice shall be treated as Inorganic foreign matter.
 5. In case of rice prepared by pressure parboiling technique, it will be ensured that correct process of parboiling is adopted i.e. pressure applied, the time for which pressure is applied, proper gelatinisation, aeration and drying before milling are adequate so that the colour and cooking time of parboiled rice are good and free from encrustation of the grains.
