

Refractions In Raw & Parboiled Rice

As per Uniform Specifications

Raw Rice

Foreign Matter

1



Sound Grains



Foreign Matter

rlb
5/XII/XII

km
5/XII/12

Includes inorganic and organic matter. The inorganic matter shall include sand, gravel, dirt, pebbles, stones, glass and metallic pieces, lumps of earth, clay and mud. Organic matter shall include husk, chaff, straw, weed seeds and other inedible grains. Paddy shall be considered as foreign matter in commodities other than paddy.

Raw Rice

Big Broken

2



Sound Grains



Broken Grains

rlb
5/XII/XII

kgm
5/XII/XII

Those pieces of rice kernel which are equal to or smaller than three-fourth but bigger than one half of the average length of the unbroken kernels.

Raw Rice

Small Broken

3



Sound Grains



Small Broken Grains

2/6
5/XII/XII

STX14202

Those pieces of rice kernels which do not exceed one quarter average length of the unbroken kernel, retained on 1.10 mm IS sieve.

Raw Rice

Damaged

4



Sound Grains



Damaged Grains

rlg
5/x11/x11

pm
5/x11/x11

Kernels or pieces of kernels that are sprouted or internally damaged as a result of heat, moisture, weather or microbes.

Raw Rice

Slightly Damaged/Touched

5



Sound Grains



Slightly Damaged /Touched Grains

rlg
5/XII/XII

km
5/XII/XII

Kernels or pieces of kernels that are damaged or discoloured, superficially so as not to affect the quality of the material.

Raw Rice

Pin Point Damaged Grains

6



Sound Grains



Pin Point Damaged Grains

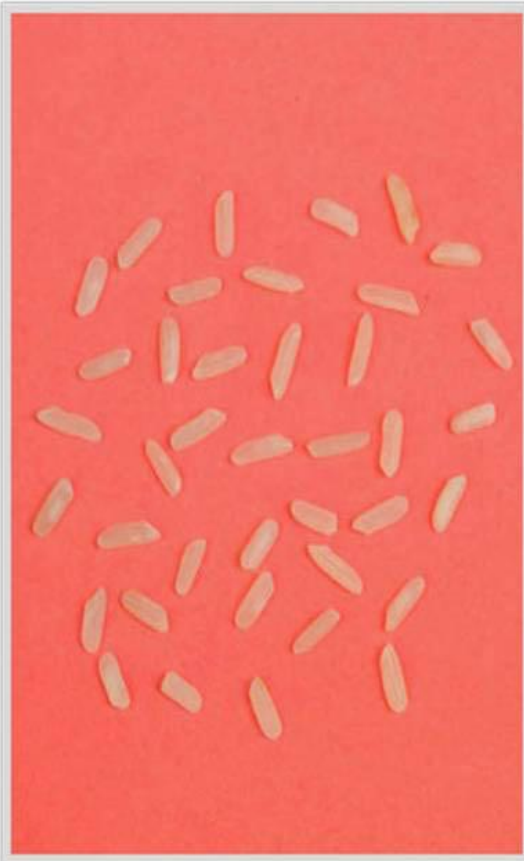
rlg
5/x11/x11

Rm
5/x11/x11

Raw Rice

Discoloured

7



Sound Grains



Discoloured Grains

rlb
5/XII/XII
Rajni
S.K. 11/11/12

Discoloured grains are kernels or pieces of kernels that have changed the colour due to deteriorative changes. Disputed tip discoloured grains to be treated as discoloured grains.

Raw Rice

Chalky Grains

8



Sound Grains



Chalky Grains

rlg
5/XII/XII

km
5/XII/XII

Kernels or pieces of kernels of which at least half the portion is opaque, milky white in colour and brittle in nature.

Raw Rice

Red Grains

9



Sound Grains



Red Grains

rlg
5/XII/XII

Ami
5/XII/12

Kernels or pieces of kernels having more than one fourth of the surface covered with red cuticle.

Raw Rice

Varietal Admixture

10



Sound Grains



Varietal Admixture

rlg
5/XII/XII

Rm
5/XII/12

The presence of a variety of the same grain other than the variety in consideration.

Raw Rice

Dehusked Grains

11



Sound Grains after Methylene
Blue & Metanil Yellow treatment



Dehusked Grains after Methylene
Blue & Metanil Yellow treatment

rlb
5/11/11
Rini

Kernels, whole or broken which have more than one fourth of the surface area of the kernel covered with bran.

Parboiled Rice

Big Broken

12



Sound Grains



Broken Grains

rlg
5/xii/xii

km
5/xii/xii

Those pieces of rice kernel which are equal to or smaller than three-fourth but bigger than one half of the average length of the unbroken kernels.

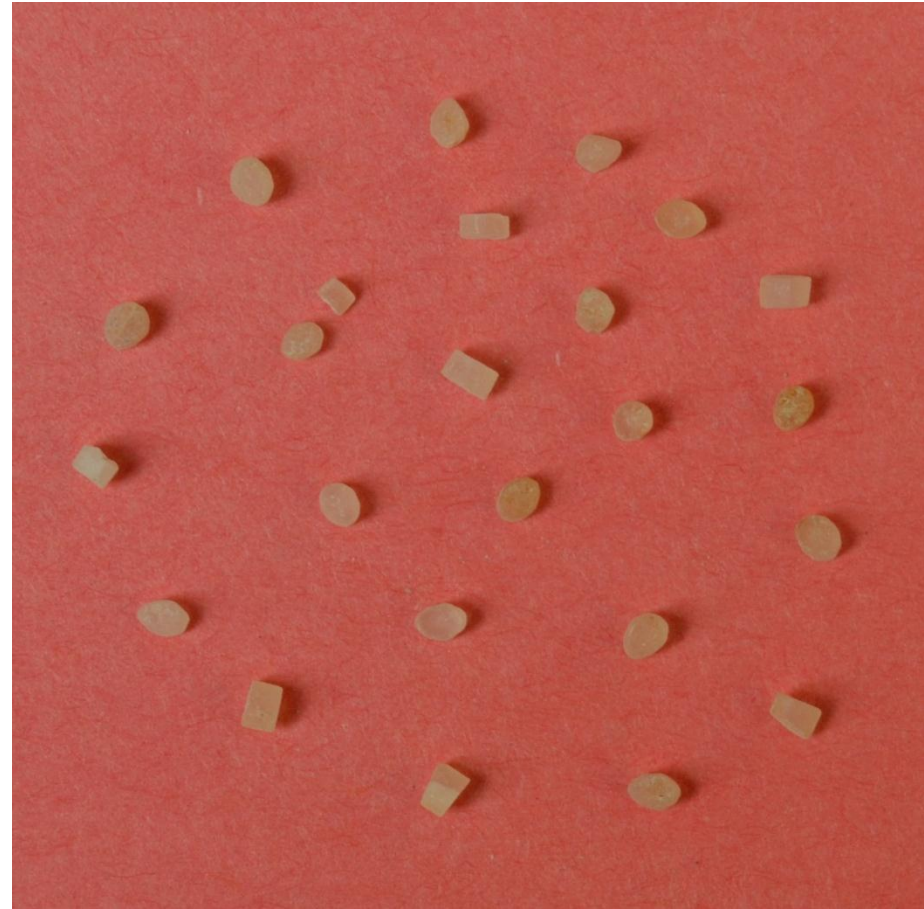
Parboiled Rice

Small Broken

13



Sound Grains



Broken Grains

26
5/11/11

pm
5/11/11

Those pieces of rice kernels which do not exceed one quarter average length of the unbroken kernel, retained on 1.10 mm IS sieve.

Parboiled Rice

Damaged

14



→ Sound Grains



rlg
5/xii/xii

Ami
5/xii/xii

Parboiled Rice

Damaged

15



Sound Grains



Transverse section of Damaged grain

alg
5/XII/XII

km
5/XII/12

Often disputed and mistaken as discoloured grains, which actually are damaged as the grains have been affected by heat while paddy was in storage. This deteriorative change has affected the core of the grain as shown in the transverse section of the grain depicted in the picture.

Parboiled Rice

Slightly Damaged/Touched

16



Sound Grains



Slightly Damaged Grains

2/6
5/XII/XII

2/6
5/XII/XII

Kernels or pieces of kernels that are damaged or discoloured, superficially so as not to affect the quality of the material.

Parboiled Rice

Discoloured

17



Sound Grains



Discoloured Grains

Handwritten notes:
5/XII/XII
STXII no 2

Kernels or pieces of kernels that have changed the colour as a result of deteriorative changes.

Parboiled Rice

Red Grains

18



Sound Grains



Red Grains

2/6
5/XII/XII

2/6
5/XII/XII

Kernels or pieces of kernels having more than one fourth of the surface covered with red cuticle.

Parboiled Rice

Varietal Admixture

19



Sound Grains



Varietal Admixture

Handwritten notes:
= 2/6
5/XII/XII
K.M. 5/11/12

The presence of a variety of the same grain other than the variety in consideration.