

Maximise Profits: Meet the East African Community Maize Grain Standard

MOISTURE

MOISTURE CONTENT:

Moisture content is a measure of how much water is in the grain (how wet it is). It is measured with a moisture meter.

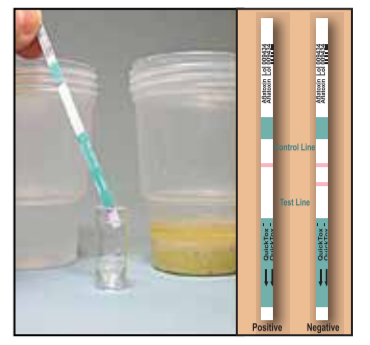
Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Moisture, % m/m	13.5		



AFLATOXINS AND FUMONISINS

Aflatoxins and Fumonisin are poisons released by certain moulds. Moulds come from soil and air and grow when grain is handled poorly. They can not be seen by the naked eye and have to be tested by a qualified personnel.

	Maximum Limit
Mycotoxin	All Grades
Total aflatoxins	10 µg/kg (ppb)
Aflatoxins B1	5 µg/kg (ppb)
Fumonisin	2 mg/kg (ppm)



Generally Acceptable Grains

ORGANOLEPTIC (APPEARANCE AND SMELL):

For all grades, maize should appear clean and bright with a natural smell.



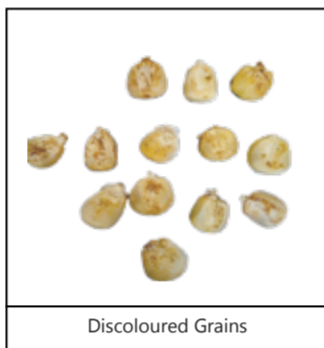
DEFECTIVE GRAIN

DISCOLOURED GRAIN:

Grain which is damaged by heat, frost or water.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Discoloured grains, % m/m	1.5	2.0	2.5

Note: The discoloured grain parameter is limited to at least 25% discolouration on both side of the kernel.

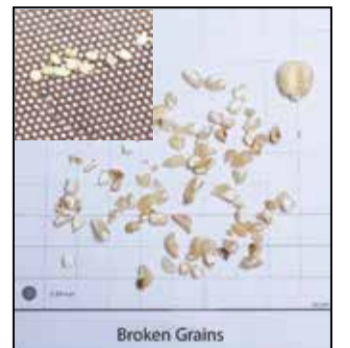


Discoloured Grains

BROKEN GRAINS:

Pieces of maize which pass through a 4.5 mm diameter round hole metal sieve.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Broken grains, % m/m	2.0	4.0	6.0

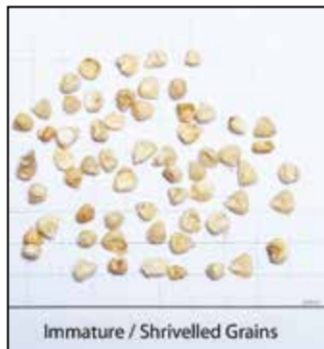


Broken Grains

IMMATURE AND SHRIVELLED GRAIN:

Grains which are underdeveloped, thin and papery in appearance.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Immature/ shrivelled grains, % m/m	1.0	2.0	3.0

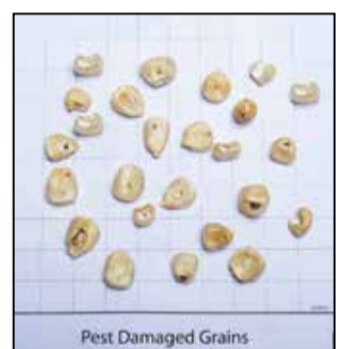


Immature / Shrivelled Grains

PEST DAMAGED GRAIN:

Maize grains with obvious weevil-bored holes or which have evidence of boring or tunneling, indicating the presence of insects, insect webbing or insect refuse; or degermed grains, grains chewed in one or more than one part of the grain which exhibit evident traces of an attack by vermin.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Pest damaged grain, % m/m	1.0	3.0	5.0



Pest Damaged Grains

STAINED GRAIN:

Grain or kernel whose natural colour has been altered by external factors, such as ground, soil or weather. This may include grain which has dark stains or discolouration with a rough external appearance.

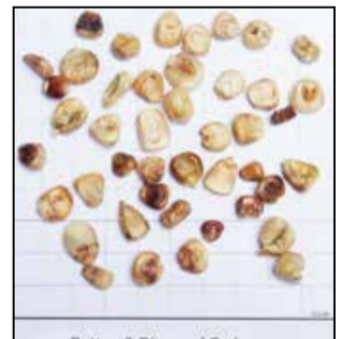


Stained grain

ROTTEN AND DISEASED GRAIN:

Grains made unsafe for human consumption due to decay, moulding or bacterial decomposition or other causes that may be noticed without having to cut the grains to examine them.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Rotten and diseased, % m/m	1.0	2.0	3.0



Rotten & Diseased Grains

TOTAL DEFECTIVES: The total defectives are all pest-damaged, discoloured, diseased, germinated, mouldy, immature and shrivelled, rotten and diseased, stained and broken grains.
Total Defectives = 70% x (%Pest-Damaged + %Discoloured + %Rotten and Diseased + %Immature and Shrivelled + %Stained + %Broken)

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Total defectives, % m/m	5.0	9.0	14.0

FOREIGN MATTER

INORGANIC MATTER:

Stones, metal, sand, soil, glass and other mineral matter.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Inorganic matter, % m/m	0.25	0.5	0.75



Inorganic Matter

ORGANIC MATTER:

This is any animal or plant matter (seed coats, straws, weeds and wood) other than grain of maize, damaged maize grain, other grains, inorganic matter and harmful/toxic seeds.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Organic matter, % m/m	No limit by itself. But limited in terms of total foreign matter.		



Organic Matter

FILTH:

Filth are impurities of animal origin, for example; animal bone fragments, bird excrement and rat droppings.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Filth, % m/m	0.1		



Filth

FOREIGN MATTER:

This is all organic and inorganic material (such as leaves, bits of maize cobs, wood, sand, soil and glass) other than maize, broken kernels, other grains.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Foreign matter, % m/m	0.5	1.0	1.5

LIVE PESTS:

For all grades, no live insects of any kind are acceptable.

Characteristic	Maximum Limit		
	Grade 1	Grade 2	Grade 3
Live insects	Nil		

