NoteA1757C

STANDARD SPECIFICATION FOR MAIZE

QUALITY STANDARD:

The maize shall have a good natural colour, be free from objectionable odour, contain no live insects, toxins and moulds and be fit for human consumption and shall comply with the following requirements

QUALITY PARAMETER	UOM	GRADES		
Grades		A	B	C
Test Density	kg/hl	67.25 min	64.75 min	61.75 min
Moisture	%	12.5 max	12.5 max	12.5 max
Extraneous matters	%	1.0 max	1.5 max	2.0 max
Broken Grains	%	6.0 max	7.0 max	8.0 max
Other Coloured grains	%	3.0 max	4.0 max	5.0 max
Total other Defective grains of which:	%	11.0 max	18.5 max	26.0 max
a. Discoloured grains	%	3.0 max	6.0 max	9.0 max
b. Insect/pest damaged grains	%	3.0 max	6.0 max	9.0 max
c. Diseased grain	%	2.0 max	2.0 max	2.0 max
d. Immature or Shrivelled grain	%	1.0 max	1.5 max	2.0 max
e. Fugal damaged grains	%	0.5 max	1.0 max	1.5 max
f. Germinated grains	%	NIL	NIL	NIL
g. Pass thru 6.35mm sieve	%	1.5 max	2.0 max	2.5 max
Diplodia	%	NIL	NIL	NIL
Fusarium	%	0.5 max	0.5 max	0.5 max

DEFINITIONS

Maize:

Refers to the seeds of *Zea mays* L.

Moisture Content:

The moisture content, expressed on a wet weight basis, shall be determined by an approved moisture meter calibrated according to a method prescribed by the Zambia Bureau of Standards

Extraneous Matter:

a). Anything other than maize grain which will pass through a 4.5 mm sieve.

b). Any animal or mineral or plant matter or grain other than maize, which will not pass through a 4.5 mm sieve.

Damaged Grain:

Means grain and pieces of grain which will pass through a 4.5 mm sieve.

Broken Grain:

Means maize, which has been broken, cracked or chipped to expose the white interior of the grain. It does not pass through the 4.5 mm sieve and has no other defects.

Other Coloured Grain:

Means grain that is coloured or partly coloured maize present in white maize or maize of any colour other than yellow present in yellow maize.

Defective Grain:

Means any grain which falls within one or other of the following categories

a) insect/pest damaged grain
b) fungal damaged grain
c) diseased grain
d) immature or shrivelled grain
e) germinated grain
f) discoloured grain

Insect/Pest Damaged Grain:
Means maize which has been damaged by any insect or animal pest.

Fungal Damaged Grain:

Means maize with visible mycelial/mould growth on its surface.

Diseased Grain:

Means maize which is obviously rotted by fungi, bacteria or other organisms of decay.

Immature or Shrivelled Grain:

Means immature maize which has indications of lack of maturity or full development and which may be thin and papery (almost see through) in appearance. Maize which is shrivelled over most of its surface.

Germinated Grain:

Means maize grain which shows any signs of germination.

Discoloured Grain:

Means grain discoloured by heating, fermentation or weathering.

Sieve:

A 6.35 mm grading sieve is a device, the bottom (baseplate) of which is perforated with round-holes 4.5 mm in diameter, and used for the separation of fine extraneous material from grain.

STANDARD SPECIFICATION FOR WHEAT

QUALITY STANDARD:

The wheat shall have a good natural colour, be free from objectionable odour, contain no live insects and shall comply with the following requirements:

WHEAT STANDARD

Quality Parameters	UOM	ZAMACE WHEAT GRADES			
		B1	B2	B3	B4
Specific Weight	Kg/hl	77 min	76 min	74 min	72 min
Moisture	%	13 max	13 max	13 max	13 max
Protein	%	12 min	11 min	10 min	9 min
Hagberg Falling Number (tolerance of 30 sec. allowed to B1, B2 & B3 only, B4 excluded)	Sec	250 min	250 min	250 min	200 min
A. Screenings	%	3 max	3 max	3 max	3 max
B. Other Grains	%	1 max	1 max	1 max	1 max
C. Foreign matter	%	1 max	1 max	1 max	1 max
D. Damaged Kernels	%	2 max	2 max	2 max	2 max
Combined Deviations (A+B+C+D)	**%**	**5 max**	**5 max**	**5 max**	**5 max**
E. Heavily Frost Damaged Kernels	%	5 max	5 max	5 max	5 max
Field Fungi infected Kernels	%	2 max	2 max	2 max	2 max
Storage Fungi Infected Kernels	%	0.5 max	0.5 max	0.5 max	0.5 max

DEFINITIONS

Wheat

Means bread milling wheat of Zambian origin, South African origin, No 2 US Dark Northern Spring, No 2 US Hard Red Winter, No 3 Canadian Red Western Spring, Australian Hard, Australian Prime Hard, Australian Premium White and Argentinean.

Wheat of sound, fair and merchantable quality which is fit for human consumption and which complies with the following criteria and not subject to any containment conditions.

Screenings

A ‘Standard sieve’ being a hand sieve manufactured of 0.8mm aluminium which consists of a slotted sieve with apertures 1.786mm wide and 12.7mm long, fits into a solid pan and is 330.2mm to 334mm in diameter.

Others Grains

Other grains, oilseeds, unthreshed ears and pods of other grains and oilseeds.

Foreign Matter

All material other than grain, oilseeds, and unthreshed ears and pods of other grain and oilseeds.

Damaged Kernels

Sprouted wheat kernels

Insect damaged wheat kernels

Immature Wheat Kernels

Of which heat damaged kernels should be 0.5% Maximum.

Protein:

Measured using the Inframatic supplied by Perten instruments.

Falling Number:

Measures the alpha-amylase enzyme activity in grains and flour to detect sprout damage. Falling number system by Perten Instrument is used to determine the falling number.

STANDARD SPECIFICATION FOR SOYA BEANS

QUALITY STANDARD:

The Soya beans shall have a good natural colour, be free from objectionable odour, contain no live insects, toxins and moulds and be fit for human consumption and shall comply with the following requirements

QUALITY PARAMETER	**UOM**	**GRADES**		
Grades		**A**	B	**C**
Moisture	%	12.0 max	12.0 max	12.0 max
Extraneous matters	%	1.0 max	2.0 max	3.0 max
Total other Defective grains of which:	%	9.0 max	11.5 max	14.0 max
a. Split Beans	%	6.0 max	8.0 max	10.0 max
b. Green Beans	%	2.0 max	2.0 max	2.0 max
c. Immature or Shrivelled beans	%	1.0 max	1.5 max	2.0 max
Oil	%	18.0 min	16.0 min	14.0 min
Protein	%	36.0 min	33.0 min	30.0 min

DEFINITIONS

Soyabeans:

Means the seeds of *Glycine max*.

Moisture Content:

The moisture content expressed on a wet weight basis shall be determined by an approved moisture meter calibrated according to a method prescribed by the Zambia Bureau of Standards

Extraneous Matter:

a). All matter, including soyabeans and pieces of soyabeans, which will pass through a 3.35 mm sieve.

b). All matter, other than soyabeans and pieces of soyabeans, which will not pass through a 3.35 mm sieve.

Defective Soyabeans:

Means soyabeans or pieces of soyabeans retained on a 3.5 mm sieve after sieving, which fall within one or other of the following categories:

a). Discoloured Soyabeans:

Means soyabeans discoloured by heat due to fermentation.

b). Germinated Soyabeans:

Means sprouted soyabeans or soyabeans in which the process of germination is visible within the embryo.

c). Weather-damaged Soyabeans:

Means soyabeans and pieces of soyabeans in which the seed coats are discoloured by weather damage on one side or both sides.

d). Infected Soyabeans:

Means soyabeans and pieces of soyabeans which show any sign of disease, fungus or virus infection.

e). Immature Soyabeans:

Means soyabeans and pieces of soyabeans which are markedly shrivelled over more than half their area or which, in cross section, show an intense green colour.

f). Pest-damaged Soyabeans:

Means soyabeans and pieces of soyabeans which are visibly damaged by insects, birds or rodents.

Split Soyabeans:

Means pieces of soyabeans remaining on a 3.35 mm sieve after sieving, which are not defective, and include mechanically damaged soyabeans that are likely to split in handling.

Sieve:

A 3.35 mm grading sieve is a device, the bottom (baseplate) of which is perforated with round-holes 3.35 mm in diameter, and used for the separation of fine extraneous material from soyabeans.