

IMPORTED MAIZE QUALITY

Quality of maize imported from 28 April 2018 to 26 April 2019 compared to RSA crop quality 2017/2018

Country of origin	Argentina			RSA Crop Average		
Class and grade yellow maize	YM1	YM2	Average	YM1	YM2	Average
RSA Grading						
Defective kernels above 6.35 mm sieve, %	2.6	3.2	2.7	2.7	5.5	3.1
Defective kernels below 6.35 mm sieve, %	3.1	4.1	3.2	1.5	3.8	1.8
Total defective kernels, %	5.7	7.3	5.9	4.2	9.4	4.9
Other colour maize kernels, %	0.0	0.0	0.0	0.1	0.5	0.1
Foreign matter, %	0.0	4.0	0.4	0.0	0.1	0.1
Combined deviations, %	5.7	7.7	5.9	4.4	9.9	5.1
Pinked maize kernels, %	0.0	0.0	0.0	0.0	0.0	0.0
Physical Factors						
100 Kernel mass, g	29.0	27.6	28.9	31.7	29.3	31.5
Stress cracks, %	12	5	11	9	13	9
Milling Index	74.5	71.7	74.2	79.9	75.3	79.4
Test weight, kg/hl	75.3	76.1	75.4	77.5	75.4	77.2
Kernel Size						
% above 10 mm sieve	2.2	1.7	2.2	11.2	9.8	11.1
% above 8 mm sieve	55.6	40.1	54.0	67.0	64.5	66.7
% below 8 mm sieve	42.2	58.2	43.8	21.8	25.7	22.2
Breakage susceptibility						
% Below 6.35 mm sieve	0.4	0.3	0.4	0.9	1.4	0.9
% Below 4.75 mm sieve	0.4	0.1	0.3	0.6	1.0	0.7
Nutritional Factors						
Protein, % (db)	8.3	8.7	8.3	9.0	9.0	9.0
Fat, % (db)	4.4	4.1	4.4	4.0	4.0	4.0
Starch, % (db)	72.4	70.9	72.3	72.0	71.8	72.0
Number of samples	9	1	10	400	34	449
Mycotoxins						
Afla G ₁ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla B ₁ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla G ₂ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla B ₂ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Fum B ₁ (µg/kg) [max. value]	421 [781]			170 [4213]	218 [1412]	173
Fum B ₂ (µg/kg) [max. value]	78 [156]			50 [1432]	71 [543]	51
Fum B ₃ (µg/kg) [max. value]	32 [64]			<20 [437]	<20 [154]	<20
Deoxynivalenol (µg/kg) [max. value]	56 [112]			263 [2348]	373 [1956]	278
15-ADON [max. value]	0 [0]			<100 [263]	<100 [244]	<100
Ochratoxin A (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Zearalenone (µg/kg) [max. value]	0 [0]			<20 [86]	<20 [121]	<20
HT2 [max. value]	0 [0]			0 [0]	0 [0]	0
T-2 Toxin (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Number of samples	2			141	25	175
GMO						
Cry1Ab, % [max value]	>5.0 [>5.0]			3.9 [>5.0]	4.3 [>5.0]	4.0
Cry2Ab, % [max value]	>5.0 [>5.0]			3.6 [>5.0]	3.3 [>5.0]	3.5
CP4 EPSPS, % [max value]	>5.0 [>5.0]			4.4 [>5.0]	>5.0 [>5.0]	4.5
Number of samples	2			39	8	50

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Country of origin	Brazil			RSA Crop Average		
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RSA Grading						
Defective kernels above 6.35 mm sieve, %	2.9	3.1	2.9	2.7	5.5	3.1
Defective kernels below 6.35 mm sieve, %	2.3	7.2	3.3	1.5	3.8	1.8
Total defective kernels, %	5.2	10.3	6.2	4.2	9.4	4.9
Other colour maize kernels, %	0.0	0.0	0.0	0.1	0.5	0.1
Foreign matter, %	0.0	0.0	0.0	0.0	0.1	0.1
Combined deviations, %	5.2	10.3	6.2	4.4	9.9	5.1
Pinked maize kernels, %	0.0	0.0	0.0	0.0	0.0	0.0
Physical Factors						
100 Kernel mass, g	29.7	29.5	29.7	31.7	29.3	31.5
Stress cracks, %	15	15	15	9	13	9
Milling Index	85.5	88.9	86.2	79.9	75.3	79.4
Test weight, kg/hl	77.0	76.5	76.9	77.5	75.4	77.2
Kernel Size						
% above 10 mm sieve	4.4	5.0	4.5	11.2	9.8	11.1
% above 8 mm sieve	59.1	55.4	58.3	67.0	64.5	66.7
% below 8 mm sieve	36.6	39.6	37.2	21.8	25.7	22.2
Breakage susceptibility						
% Below 6.35 mm sieve	0.2	0.3	0.2	0.9	1.4	0.9
% Below 4.75 mm sieve	0.3	0.3	0.3	0.6	1.0	0.7
Nutritional Factors						
Protein, % (db)	8.7	8.7	8.7	9.0	9.0	9.0
Fat, % (db)	4.2	4.2	4.2	4.0	4.0	4.0
Starch, % (db)	68.7	68.7	68.7	72.0	71.8	72.0
Number of samples	4	1	5	400	34	449
Mycotoxins						
Afla G ₁ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla B ₁ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla G ₂ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Afla B ₂ (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Fum B ₁ (µg/kg) [max. value]	415 [415]			170 [4213]	218 [1412]	173
Fum B ₂ (µg/kg) [max. value]	137 [137]			50 [1432]	71 [543]	51
Fum B ₃ (µg/kg) [max. value]	53 [53]			<20 [437]	<20 [154]	<20
Deoxynivalenol (µg/kg) [max. value]	0 [0]			263 [2348]	373 [1956]	278
15-ADON [max. value]	0 [0]			<100 [263]	<100 [244]	<100
Ochratoxin A (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Zearalenone (µg/kg) [max. value]	0 [0]			<20 [86]	<20 [121]	<20
HT2 [max. value]	0 [0]			0 [0]	0 [0]	0
T-2 Toxin (µg/kg) [max. value]	0 [0]			0 [0]	0 [0]	0
Number of samples	1			141	25	175
GMO						
Cry1Ab, % [max value]	>5.0 [>5.0]			3.9 [>5.0]	4.3 [>5.0]	4.0
Cry2Ab, % [max value]	>5.0 [>5.0]			3.6 [>5.0]	3.3 [>5.0]	3.5
CP4 EPSPS, % [max value]	>5.0 [>5.0]			4.4 [>5.0]	>5.0 [>5.0]	4.5
Number of samples	1			39	8	50