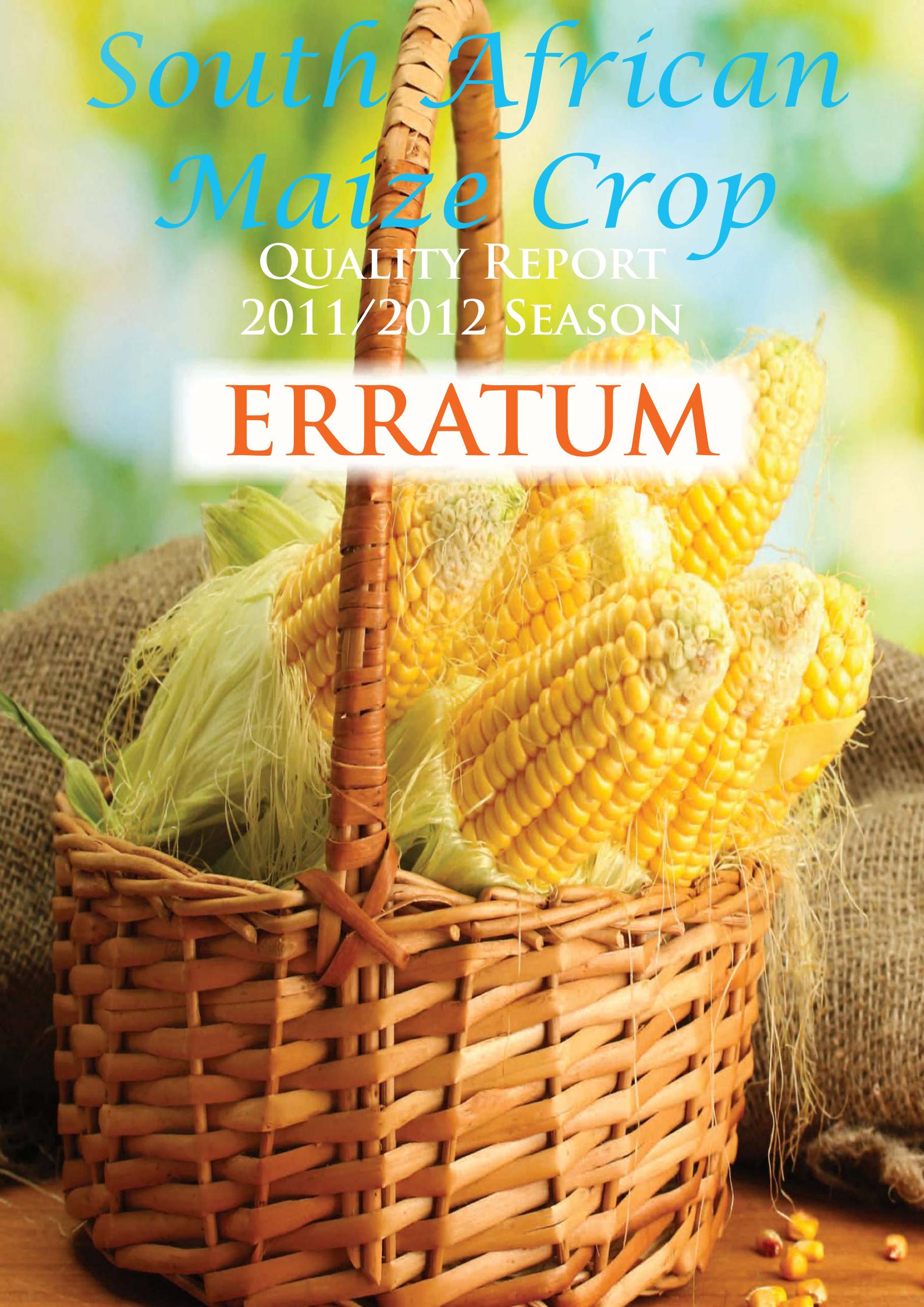# South African Maize Crop

QUALITY REPORT
2011/2012 SEASON

ERRATUM

Erratum to Maize Crop Quality Report 2011/2012

The SAGL deems it necessary to make a few minor changes to the Maize Crop Quality Report for 2011/2012. These changes relate to only 7% of the samples that were analysed and has reference specifically to the class and grades awarded. Although the changes are not regarded as substantial, it was decided to publish an erratum in this regard, as accurate results are of high importance to the SAGL.

For ease of reference all the relevant tables are re-published, with the changes highlighted and the original page numbers retained. The new tables could therefore simply be used to replace the existing tables without any disruption to the allocated page numbers.

Please note that the following data remains unaffected:
- The crop quality results per colour per region updated weekly on the SAGL's website.
- All average, minimum and maximum data for white and yellow maize as a total, RSA averages, 10 year averages and graphs contained in the report.

The changes in the number of samples per region, as well as in the average results that are deemed to be significant, are indicated in orange.

Average results per region, which are added to a class or grade summary and are derived from the changes to the class and grade awarded to certain samples, are indicated in Italics.

The rectified RSA averages per class and grade were published on the SAGL's website on 15 May 2013.

Please contact the SAGL for any enquiries and accept our apologies for any inconvenience caused as a result of this erratum.

INDEX

SOUTH AFRICAN
COMMERCIAL MAIZE QUALITY
2011/2012

1. Introduction

The final commercial crop figure for maize for the 2011/2012 season as calculated by the National Crop Estimates Committee was 11 830 000 tons. This is 14% more than the previous season's 10 360 000 tons. The major maize-producing region was the Free State (4 730 000 tons), followed by North West Province (2 574 000 tons) and Mpumalanga (2 504 000 tons). White maize contributed 57% to the total production, which is 1% less than the previous season.

One thousand composite samples, proportionally representing white and yellow maize of each production region, were analysed for quality. The samples consisted of 577 white and 423 yellow maize samples.

The quality attributes which were tested for, include:
a. RSA grading: All samples were graded according to the following factors, as defined in the South African grading regulation: defective kernels above and below 6.35 mm sieve, total defective kernels, foreign matter, other colour, total deviation and pinked kernels.
b. USA grading according to regulations on all samples to determine the following factors: Grain density expressed as Hectolitre mass, heat damaged, total damaged, broken corn and foreign matter (BCFM) and other colour.
c. Nutritional values (on all samples): Fat, protein and starch.
d. Physical Quality factors (on all samples): Hectolitre mass, 100 kernel mass, kernel size, breakage susceptibility, stress cracks and milling index.
e. All white maize samples were milled on the Roff laboratory mill and the whiteness index of the maize meal determined.
f. Mycotoxin analyses were performed on 100 samples representative of white and yellow maize produced per region.

g. Testing for the presence of Genetically Modified (GM) maize were performed on 100 samples representative of white and yellow maize produced per region.

Please refer to the methodologies followed on pages 57 - 61.

The maize crop quality survey is performed annually by the Southern African Grain Laboratory (SAGL). SAGL was established in 1997 on request of the Grain Industry. SAGL is an ISO 17025 accredited testing laboratory and participates in eleven international and one local proficiency testing scheme as part of our ongoing quality assurance to demonstrate technical competency and international comparability.

2. Maize Crop Quality - summary of results

2.1 RSA Grading

The maize crop was of very good quality, with **86%** of white maize and **84%** of yellow maize, graded as maize grade one. The percentage defective kernels above and below the 6.35 mm sieve, 4.5% for white and 5.0% for yellow, were lower than the previous season's 7.0% and 6.8% for white and yellow maize respectively. Diplodia and fusarium infected kernel levels were on average 1.4% and 0.6% lower than the 2010/2011 season. Foreign matter and other colour maize did not pose any problems.

The average percentage combined deviations of white maize decreased with 2.5% and that of yellow maize with 2.0% compared to the previous season. The average percentage total deviations on South African maize this season is 0.8% lower than the ten year weighted average of 5.9%.

Table 2: SOUTH AFRICAN MAIZE CROP QUALITY 2011/2012 (Weighted Averages)

Class and grade of maize	WM1	WM2	WM3	WCOM	YM1	YM2	YM3	YCOM	Weighted Ave.
RSA Grading									
Defective kernels above 6.35 mm sieve, %	2.1	4.8	8.0	3.3	2.1	3.7	2.4	12.4	2.5
Defective kernels below 6.35 mm sieve, %	1.9	2.9	2.3	3.6	2.0	4.6	8.0	7.0	2.2
Total defective kernels, %	4.0	7.7	10.3	6.8	4.1	8.3	10.4	19.3	4.7
Other colour maize kernels, %	0.2	0.5	0.3	0.9	0.1	0.2	0.1	1.8	0.2
Foreign matter, %	0.1	0.2	0.4	0.9	0.1	0.2	0.4	1.3	0.1
Combined deviation, %	4.3	8.4	11.0	15.8	4.3	8.8	10.8	22.5	5.1
Pinked maize kernels, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Physical Factors									
Hectolitre mass, kg/hl	78.3	77.3	75.8	76.3	76.4	74.8	73.6	74.7	77.3
100 Kernel mass, g	31.2	31.2	30.1	31.9	30.0	25.9	25.1	28.9	30.4
Stress cracks, %	5	7	10	9	6	6	5	10	6
Milling Index	93.2	94.6	93.0	88.5	88.0	87.5	84.8	88.2	91.0
Kernel Size									
% on top 10 mm	18.8	19.0	20.0	15.3	12.0	7.3	5.2	11.9	15.6
% on top 8 mm	65.2	62.3	66.3	67.5	64.8	58.7	58.5	64.1	64.5
% through 8 mm	16.0	18.7	13.7	17.2	23.2	34.0	36.4	24.0	19.9
Breakage susceptibility									
% Below 6.35 mm sieve	0.8	1.2	2.3	1.2	1.2	2.0	2.9	2.8	1.1
% Below 4.75 mm sieve	0.5	0.8	1.6	0.8	0.9	1.2	2.0	1.6	0.7
Nutritional Values									
Protein, %	8.6	8.9	8.8	8.8	8.8	9.3	9.5	9.5	8.7
Fat, % (db)	4.1	4.1	4.2	4.1	3.8	3.7	3.8	3.9	4.0
Starch, % (db)	72.7	72.4	72.3	72.5	73.0	73.2	72.9	72.6	72.8
Number of samples	*498*	*65*	*8*	*6*	*354*	*57*	*6*	*6*	*1000*
Mycotoxins									
Total Aflatoxin, µg/kg (ppb) [max. value]	0 [0]	0 [0]	-	0 [0]	0 [0]	0 [0]	0 [0]	-	0 [0]
Total Fumonisin, µg/kg (ppb) [max. value]	115 [2 235]	748 [4 419]	-	741 [741]	98 [911]	3 [21]	<20 [<20]	-	182 [4 419]
Deoxynivalenol, µg/kg (ppb) [max. value]	13 [303]	40 [485]	-	0 [0]	0 [<100]	0 [<100]	0 [0]	-	10 [485]
15-ADON, µg/kg (ppb) [max. value]	2 [31]	7 [85]	-	0 [0]	1 [<21]	0 [<20]	0 [0]	-	2 [85]
Ochratoxin A, µg/kg (ppb) [max. value]	0 [0]	0 [0]	-	0 [0]	0 [0]	0 [0]	0 [0]	-	0 [0]
Zearalenone, µg/kg (ppb) [max. value]	4 [200]	25 [297]	-	0 [0]	0 [<20]	0 [<20]	0 [0]	-	5 [297]
HT-2 Toxin, µg/kg (ppb) [max.value]	0 [0]	0 [0]	-	0 [0]	0 [0]	0 [0]	0 [0]	-	0 [0]
T - 2 Toxin, µg/kg (ppb) [max. value]	0 [0]	0 [<20]	-	0 [0]	0 [0]	0 [0]	0 [0]	-	0 [<20]
Number of samples	*45*	*12*	-	*1*	*33*	*7*	*2*	-	*100*
GMO									
Cry1Ab, % Samples positive (>LOQ of 0.4%)	98	100	-	100	94	100	100	-	97
Cry2Ab, % Samples positive (>LOQ of 0.5%)	16	33	-	100	33	43	50	-	27
CP4 EPSPS, % Samples positive (>LOQ of 0.25%)	87	100	-	100	97	100	100	-	93
Number of samples	*45*	*12*	-	*1*	*33*	*7*	*2*	-	*100*

Note: Non detective mycotoxin results are reported as 0, see LOQ.

TABLE 3: RSA GRADING OF WHITE MAIZE (2011/2012)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Other Colour			% Combined Deviations			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35 mm sieve			Below 6.35 mm sieve																											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM1																																
1	Region 11	3.6	-	-	2.7	-	-	6.3	-	-	0.2	-	-	0.0	-	-	6.5	-	-	0.0	-	-	1.6	-	-	0.9	-	-	2.6	-	-
11	Region 12	1.9	0.5	3.3	2.0	0.4	4.4	3.9	1.9	6.6	0.1	0.0	0.2	0.1	0.0	0.5	4.1	2.3	6.6	0.0	0.0	0.0	0.5	0.0	1.1	0.2	0.0	0.5	0.7	0.0	1.6
31	Region 13	2.1	0.8	4.7	2.4	1.6	3.7	4.5	2.6	6.7	0.1	0.0	0.2	0.2	0.0	1.2	4.8	2.6	7.9	0.0	0.0	0.2	0.4	0.0	1.2	0.4	0.0	1.5	0.8	0.0	1.7
43	Region 14	2.0	0.7	5.5	2.2	0.2	4.2	4.2	1.4	6.3	0.1	0.0	0.2	0.2	0.0	1.0	4.4	1.4	6.9	0.0	0.0	0.7	0.4	0.0	1.3	0.3	0.0	1.3	0.7	0.0	2.0
11	Region 15	2.3	0.7	6.0	1.2	0.3	2.2	3.5	1.0	6.9	0.1	0.0	0.2	0.1	0.0	0.6	3.6	1.0	6.9	0.0	0.0	0.0	0.5	0.0	1.3	0.4	0.0	0.9	0.9	0.3	1.9
24	Region 16	1.8	0.7	3.4	1.7	0.6	3.1	3.5	1.4	6.5	0.1	0.0	0.2	0.1	0.0	1.1	3.7	1.4	6.5	0.0	0.0	0.3	0.4	0.0	1.1	0.3	0.0	1.1	0.7	0.0	2.1
24	Region 17	2.1	1.1	4.5	1.8	1.0	3.2	3.9	2.4	5.6	0.1	0.0	0.2	0.1	0.0	0.7	4.2	2.4	5.8	0.0	0.0	0.8	0.5	0.0	1.6	0.2	0.0	0.8	0.7	0.0	1.6
28	Region 18	2.0	0.9	3.8	2.1	0.8	5.6	4.1	2.3	6.7	0.1	0.0	0.2	0.3	0.0	1.0	4.4	2.6	7.0	0.0	0.0	0.2	0.4	0.0	1.0	0.3	0.0	0.7	0.7	0.0	1.6
17	Region 19	2.2	0.7	3.9	2.4	1.3	3.9	4.5	2.4	6.2	0.1	0.0	0.3	0.2	0.0	0.5	4.8	2.9	6.6	0.1	0.0	0.6	0.6	0.0	1.4	0.3	0.0	1.4	0.9	0.0	1.8
9	Region 20	2.2	0.9	4.2	2.1	0.5	2.7	4.2	1.4	6.4	0.1	0.0	0.3	0.4	0.0	1.1	4.8	1.5	7.8	0.1	0.0	0.4	0.6	0.0	1.4	0.4	0.0	0.7	1.0	0.0	2.1
27	Region 21	1.7	0.4	2.7	1.9	0.9	3.4	3.7	1.8	6.0	0.1	0.0	0.2	0.3	0.0	2.8	4.0	1.9	6.2	0.0	0.0	0.1	0.3	0.0	0.8	0.3	0.0	1.4	0.6	0.0	2.1
35	Region 22	2.3	0.3	5.1	1.9	0.1	3.2	4.2	0.5	6.4	0.1	0.0	0.2	0.1	0.0	1.7	4.4	0.7	6.9	0.0	0.0	0.0	0.4	0.0	1.9	0.5	0.0	2.0	0.9	0.0	2.6
43	Region 23	1.9	0.4	3.7	2.3	0.4	4.8	4.2	1.5	7.0	0.1	0.0	0.3	0.0	0.0	0.5	4.4	1.6	7.4	0.0	0.0	0.6	0.3	0.0	1.2	0.4	0.0	0.9	0.7	0.0	1.8
21	Region 24	2.3	1.3	4.5	2.0	1.1	2.8	4.4	3.2	6.8	0.1	0.0	0.2	0.1	0.0	0.6	4.6	3.4	6.8	0.0	0.0	0.3	0.4	0.0	1.2	0.4	0.0	1.0	0.7	0.0	1.8
6	Region 25	2.3	1.2	3.0	1.8	1.2	2.9	4.2	2.9	5.9	0.1	0.0	0.2	0.4	0.0	0.6	4.6	3.3	6.8	0.0	0.0	0.1	0.7	0.1	1.2	0.4	0.3	0.6	1.1	0.4	1.9
4	Region 26	2.3	1.5	2.7	1.5	0.0	2.6	3.8	1.5	5.1	0.1	0.0	0.3	0.5	0.0	1.3	4.4	1.5	6.1	0.0	0.0	0.0	0.4	0.0	1.0	0.3	0.0	0.5	0.7	0.0	1.5
2	Region 27	2.3	2.0	2.6	1.5	1.1	1.9	3.8	3.8	3.9	0.1	0.1	0.1	0.3	0.0	0.5	4.2	3.9	4.5	0.0	0.0	0.0	0.9	0.9	0.9	0.3	0.0	0.6	1.2	0.9	1.5
15	Region 28	2.4	1.1	4.2	1.6	0.1	4.6	4.1	1.6	6.8	0.1	0.1	0.2	0.4	0.0	1.1	4.6	1.7	8.0	0.0	0.0	0.0	0.8	0.4	1.5	0.4	0.0	1.4	1.2	0.4	2.6
15	Region 29	2.6	1.2	4.2	1.7	0.9	2.6	4.4	2.1	6.3	0.1	0.0	0.3	0.3	0.0	1.1	4.7	2.5	6.5	0.0	0.0	0.5	0.7	0.0	1.4	0.1	0.0	1.0	0.8	0.0	2.4
27	Region 30	2.3	0.6	4.7	1.7	0.5	3.4	3.9	1.7	5.8	0.1	0.0	0.3	0.3	0.0	1.9	4.3	2.2	6.1	0.0	0.0	0.0	0.5	0.0	3.0	0.2	0.0	0.8	0.7	0.0	3.0
8	Region 31	1.8	1.2	2.7	1.5	0.6	2.4	3.3	1.8	4.6	0.1	0.0	0.2	0.1	0.0	0.5	3.5	1.9	4.8	0.0	0.0	0.0	0.6	0.2	1.0	0.2	0.0	0.6	0.8	0.2	1.6
27	Region 32	1.9	0.7	4.0	1.3	0.3	2.9	3.3	2.0	5.2	0.1	0.0	0.3	0.3	0.0	1.2	3.7	2.1	5.2	0.1	0.0	0.4	0.5	0.0	1.4	0.3	0.0	1.2	0.8	0.0	1.9
22	Region 33	2.0	0.8	2.8	1.7	0.5	3.1	3.6	2.4	5.5	0.1	0.0	0.3	0.3	0.0	1.2	4.1	2.5	5.9	0.0	0.0	0.0	0.7	0.3	1.1	0.2	0.0	0.9	0.9	0.4	1.9
32	Region 34	2.2	0.7	4.7	1.6	0.4	3.1	3.8	1.6	6.8	0.1	0.0	0.2	0.3	0.0	2.5	4.1	1.6	6.8	0.0	0.0	0.3	0.5	0.0	1.4	0.2	0.0	1.1	0.8	0.0	1.8
4	Region 35	2.6	2.1	2.9	1.2	1.0	1.4	3.8	3.5	4.2	0.1	0.1	0.2	0.1	0.0	0.5	4.0	3.7	4.8	0.0	0.0	0.0	0.9	0.7	1.0	0.5	0.5	0.6	1.4	1.2	1.5
11	Region 36	2.6	1.5	3.7	1.7	0.5	2.9	4.2	2.4	5.3	0.1	0.0	0.2	0.2	0.0	0.7	4.6	2.8	5.6	0.0	0.0	0.0	0.7	0.4	1.1	0.2	0.0	0.6	0.9	0.4	1.7
498	**Ave. WM1**	**2.1**			**1.9**			**4.0**			**0.1**			**0.2**			**4.3**			**0.0**			**0.5**			**0.3**			**0.8**		
	Min. WM1		**0.3**			**0.0**			**0.5**			**0.0**			**0.0**			**0.7**			**0.0**			**0.0**			**0.0**			**0.0**	
	Max. WM1			**6.0**			**5.6**			**7.0**			**0.3**			**2.8**			**8.0**			**0.8**			**3.0**			**2.0**			**3.0**

TABLE 3: RSA GRADING OF WHITE MAIZE (2011/2012) (continue)

Number of samples	Region	% Defective Kernels — Above 6.35 mm sieve			% Defective Kernels — Below 6.35 mm sieve			% Total defective			% Foreign matter			% Other Colour			% Combined Deviations			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM2																															
2	Region 12	7.1	3.1	11.2	2.4	0.3	4.5	9.5	7.6	11.5	0.2	0.1	0.2	0.5	0.5	0.5	10.2	8.3	12.1	0.0	0.0	0.0	2.9	1.0	4.8	1.6	0.7	2.6	4.5	1.7	7.4
9	Region 13	5.5	1.6	9.1	2.8	1.9	4.9	8.3	4.3	11.0	0.2	0.0	0.5	0.4	0.0	1.5	8.9	5.1	12.4	0.0	0.0	0.0	1.6	0.0	3.7	1.1	0.0	1.9	2.7	0.5	5.6
4	Region 14	4.3	1.8	9.2	3.0	1.0	5.2	7.3	3.3	10.1	0.1	0.0	0.4	0.2	0.0	0.7	7.6	3.8	10.1	0.0	0.0	0.0	0.5	0.2	0.7	0.2	0.0	0.7	0.6	0.2	1.4
1	Region 15	4.7	-	-	2.4	-	-	7.1	-	-	0.2	-	-	0.7	-	-	8.1	-	-	0.0	-	-	2.0	-	-	1.0	-	-	3.0	-	-
6	*Region 16*	*2.1*	*1.1*	*3.4*	*2.7*	*1.6*	*5.9*	*4.9*	*3.0*	*7.9*	*0.4*	*0.1*	*0.5*	*0.0*	*0.0*	*0.2*	*5.3*	*3.4*	*8.0*	*0.0*	*0.0*	*0.0*	*0.5*	*0.2*	*0.9*	*0.8*	*0.4*	*1.3*	*1.3*	*1.0*	*1.6*
3	Region 17	5.6	2.3	11.1	1.5	1.1	2.2	7.1	3.6	12.2	0.3	0.3	0.4	0.2	0.0	0.4	7.7	4.0	13.0	0.0	0.0	0.0	1.5	0.4	3.4	1.0	0.0	2.6	2.5	0.8	6.1
5	Region 18	5.0	1.9	9.3	3.1	0.7	7.5	8.0	2.6	10.7	0.2	0.0	0.4	0.4	0.0	1.7	8.6	2.9	11.6	0.0	0.0	0.0	1.1	0.2	2.4	1.2	0.5	2.1	2.3	0.7	4.3
7	Region 19	4.7	3.7	5.7	2.9	1.4	4.9	7.6	6.8	9.2	0.1	0.0	0.4	0.3	0.0	1.0	8.1	7.2	9.3	0.0	0.0	0.0	1.3	0.0	2.1	0.7	0.0	1.7	2.0	0.0	3.0
3	Region 21	3.2	2.5	4.7	4.5	3.5	5.4	7.8	7.2	8.2	0.2	0.0	0.5	2.1	0.1	5.8	10.0	7.3	14.2	0.0	0.0	0.0	0.8	0.5	1.1	0.2	0.0	0.3	0.9	0.7	1.1
4	Region 22	4.5	1.9	9.4	3.7	1.7	8.1	8.3	3.7	11.3	0.2	0.0	0.4	0.3	0.0	0.5	8.7	4.3	12.0	0.0	0.0	0.0	1.1	0.3	2.7	1.4	0.0	3.8	2.5	0.5	6.5
4	Region 23	5.5	4.1	6.9	2.4	1.1	4.2	8.0	7.6	8.3	0.1	0.0	0.3	0.1	0.0	0.4	8.2	8.1	8.4	0.0	0.0	0.0	1.3	0.6	2.1	0.9	0.7	1.1	2.2	1.4	3.3
1	*Region 24*	*4.9*	-	-	*2.5*	-	-	*7.3*	-	-	*0.0*	-	-	*0.4*	-	-	*7.7*	-	-	*0.0*	-	-	*0.4*	-	-	*0.0*	-	-	*0.4*	-	-
3	Region 26	2.7	1.3	5.0	5.3	2.8	7.3	7.9	7.5	8.5	0.3	0.2	0.3	0.8	0.5	1.4	9.0	8.2	10.2	0.0	0.0	0.0	0.7	0.4	1.0	0.1	0.0	0.4	0.8	0.4	1.4
2	Region 28	6.7	4.8	8.5	2.5	0.9	4.1	9.2	8.9	9.4	0.1	0.0	0.3	0.5	0.3	0.8	9.8	9.2	10.4	0.2	0.0	0.4	1.7	0.9	2.6	1.1	0.6	1.5	2.8	1.5	4.1
4	Region 29	5.5	4.7	6.3	2.2	1.1	2.7	7.7	7.4	8.5	0.1	0.0	0.3	0.5	0.0	1.6	8.4	7.5	9.5	0.0	0.0	0.0	2.7	0.4	5.7	0.7	0.4	1.0	3.4	0.8	6.0
4	Region 30	5.9	5.0	7.8	2.4	1.6	3.4	8.4	7.2	11.3	0.1	0.0	0.3	1.4	0.0	4.1	9.8	7.3	11.6	0.0	0.0	0.2	1.0	0.2	2.1	0.8	0.0	1.9	1.7	0.2	3.2
1	Region 33	6.9	-	-	2.4	-	-	9.3	-	-	0.1	-	-	0.3	-	-	9.7	-	-	0.6	-	-	1.7	-	-	0.0	-	-	1.7	-	-
2	Region 36	5.2	4.2	6.1	2.1	1.3	2.9	7.2	7.1	7.4	0.3	0.3	0.4	0.7	0.6	0.8	8.2	8.1	8.4	0.0	0.0	0.0	1.6	1.4	1.8	1.0	0.9	1.1	2.6	2.3	2.9
65	**Ave. WM2**	**4.8**			**2.9**			**7.7**			**0.2**			**0.5**			**8.4**			**0.0**			**1.3**			**0.8**			**2.1**		
	Min. WM2	**1.1**			**0.3**			**2.6**			**0.0**			**0.0**			**2.9**			**0.0**			**0.0**			**0.0**			**0.0**		
	Max. WM2	**11.2**			**8.1**			**12.2**			**0.5**			**5.8**			**14.2**			**0.6**			**5.7**			**3.8**			**7.4**		

TABLE 3: RSA GRADING OF WHITE MAIZE (2011/2012) (continue)

Number of samples	Region	% Defective Kernels Above 6.35 mm sieve ave.	min.	max.	Below 6.35 mm sieve ave.	min.	max.	% Total defective ave.	min.	max.	% Foreign matter ave.	min.	max.	% Other Colour ave.	min.	max.	% Combined Deviations ave.	min.	max.	% Pinked Kernels ave.	min.	max.	% Diplodia Kernels ave.	min.	max.	% Fusarium Kernels ave.	min.	max.	% Cobrot Kernels ave.	min.	max.
GRADE: WM3																															
1	Region 19	11.7	-	-	1.9	-	-	13.6	-	-	0.2	-	-	1.6	-	-	15.5	-	-	0.0	-	-	4.6	-	-	2.6	-	-	7.2	-	-
1	Region 21	2.2	-	-	3.9	-	-	6.1	-	-	0.7	-	-	0.0	-	-	6.8	-	-	0.0	-	-	0.0	-	-	0.7	-	-	0.7	-	-
1	Region 22	0.8	-	-	1.9	-	-	2.7	-	-	0.7	-	-	0.0	-	-	3.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
4	Region 23	9.0	1.1	21.6	2.1	1.4	2.8	11.1	3.9	23.0	0.4	0.2	0.7	0.3	0.0	1.0	11.8	4.6	23.2	0.0	0.0	0.2	1.1	0.0	3.7	0.8	0.0	2.0	1.8	0.0	5.8
1	Region 30	12.8	-	-	2.4	-	-	15.2	-	-	0.0	-	-	0.0	-	-	15.2	-	-	0.0	-	-	1.9	-	-	0.0	-	-	1.9	-	-
8	Ave. WM3	8.0			2.3			10.3			0.4			0.3			11.0			0.0			1.3			0.8			2.2		
	Min. WM3		0.8			1.4			2.7			0.0			0.0			3.4			0.0			0.0			0.0			0.0	
	Max. WM3			21.6			3.9			23.0			0.7			1.6			23.2			0.2			4.6			2.6			7.2
CLASS: COM																															
1	Region 13	1.5	-	-	2.1	-	-	3.5	-	-	0.9	-	-	0.2	-	-	4.6	-	-	0.0	-	-	0.1	-	-	0.7	-	-	0.9	-	-
1	Region 15	5.3	-	-	0.8	-	-	6.1	-	-	0.9	-	-	0.3	-	-	7.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
1	Region 19	4.1	-	-	2.8	-	-	6.9	-	-	0.6	-	-	43.7	-	-	51.2	-	-	0.0	-	-	2.0	-	-	1.0	-	-	2.9	-	-
2	Region 20	3.7	3.6	3.7	6.9	6.0	7.9	10.6	9.6	11.6	1.0	0.8	1.1	1.6	0.1	3.2	13.2	12.8	13.6	0.1	0.0	0.3	0.6	0.0	1.2	0.8	0.8	0.9	1.4	0.9	2.0
1	Region 33	1.4	-	-	1.9	-	-	3.3	-	-	1.1	-	-	0.9	-	-	5.3	-	-	0.0	-	-	0.5	-	-	0.0	-	-	0.5	-	-
6	Ave. COM	3.3			3.6			6.8			0.9			8.1			15.8			0.0			0.6			0.6			1.2		
	Min. COM		1.4			0.8			3.3			0.6			0.1			4.6			0.0			0.0			0.0			0.0	
	Max. COM			5.3			7.9			11.6			1.1			43.7			51.2			0.3			2.0			1.0			2.9
577	Ave. white maize	2.5			2.0			4.5			0.1			0.3			5.0			0.0			0.6			0.4			1.0		
	Min. white maize		0.3			0.0			0.5			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max. white maize			21.6			8.1			23.0			1.1			43.7			51.2			0.8			5.7			3.8			7.4
1000	Ave. maize	2.5			2.2			4.7			0.1			0.3			5.1			0.0			0.6			0.4			1.0		
	Min. maize		0.3			0.0			0.5			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max. maize			66.3			22.9			89.2			3.6			43.7			90.4			0.8			6.2			5.5			11.6

TABLE 4: RSA GRADING OF YELLOW MAIZE (2011/2012)

Number of samples	Region	% Defective Kernels Above 6.35 mm sieve			Below 6.35 mm sieve			% Total defective			% Foreign matter			% Other Colour			% Combined Deviations			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
	GRADE: YM1																														
4	Region 10	1.3	0.4	1.8	2.0	1.5	2.4	3.4	2.6	3.9	0.1	0.0	0.2	0.1	0.0	0.5	3.6	2.6	4.1	0.0	0.0	0.0	0.5	0.0	0.8	0.1	0.0	0.3	0.5	0.0	0.8
19	Region 11	2.5	0.8	4.7	2.2	0.7	3.5	4.6	1.9	8.0	0.1	0.0	0.3	0.0	0.0	0.1	4.7	1.9	8.4	0.0	0.0	0.0	0.3	0.0	2.0	0.6	0.0	4.4	0.9	0.0	4.4
5	Region 12	3.1	1.7	4.0	2.0	1.1	3.5	5.1	2.8	7.5	0.1	0.0	0.2	0.2	0.0	1.1	5.5	2.9	8.6	0.0	0.0	0.0	1.0	0.6	2.0	0.5	0.0	1.1	1.6	0.6	2.3
8	Region 13	2.2	0.9	3.5	2.6	1.1	3.5	4.9	2.9	6.4	0.1	0.0	0.2	0.3	0.0	1.0	5.3	3.0	7.2	0.0	0.0	0.0	0.5	0.0	1.2	0.4	0.0	0.9	0.9	0.3	2.1
11	Region 14	2.1	1.1	4.0	2.0	1.0	3.3	4.1	2.6	6.1	0.1	0.0	0.2	0.2	0.0	1.2	4.4	2.9	6.3	0.0	0.0	0.0	0.6	0.0	1.2	0.3	0.0	0.6	0.9	0.0	1.8
3	Region 15	2.5	2.2	3.0	1.1	0.9	1.2	3.6	3.3	3.9	0.2	0.1	0.3	0.0	0.0	0.0	3.7	3.5	4.1	0.0	0.0	0.0	0.8	0.4	1.2	0.4	0.2	0.6	1.3	0.6	1.8
5	Region 16	2.2	1.2	3.2	1.6	1.0	3.0	3.8	2.3	5.2	0.2	0.1	0.3	0.3	0.0	0.6	4.2	2.7	5.9	0.0	0.0	0.0	0.8	0.2	1.3	0.2	0.0	0.6	1.0	0.2	1.9
9	Region 17	2.3	0.8	4.5	2.4	1.7	4.0	4.7	3.2	6.8	0.1	0.0	0.2	0.1	0.0	0.8	5.0	3.3	7.0	0.0	0.0	0.0	0.6	0.0	1.5	0.3	0.0	0.9	0.9	0.0	2.4
11	Region 18	1.9	0.6	4.2	2.2	1.2	3.4	4.1	2.1	7.6	0.1	0.1	0.2	0.0	0.0	0.5	4.3	2.2	7.7	0.0	0.0	0.0	0.3	0.0	0.9	0.2	0.0	0.7	0.5	0.0	1.1
6	Region 19	1.3	0.7	1.7	2.3	1.4	3.1	3.6	2.3	4.6	0.2	0.1	0.3	0.2	0.0	0.6	3.9	2.9	4.8	0.0	0.0	0.0	0.3	0.0	0.6	0.2	0.0	0.6	0.6	0.0	1.0
5	Region 20	1.9	0.7	4.4	2.1	1.5	3.0	4.0	3.0	5.9	0.1	0.0	0.2	0.2	0.0	1.0	4.3	3.2	7.1	0.0	0.0	0.0	0.6	0.0	1.5	0.3	0.0	0.8	0.9	0.4	2.3
7	Region 21	2.4	1.5	3.5	1.6	0.6	2.3	4.1	3.0	5.9	0.2	0.1	0.2	0.0	0.0	0.2	4.3	3.1	6.0	0.0	0.0	0.0	0.7	0.2	1.3	0.2	0.0	0.5	1.0	0.2	1.7
4	Region 22	2.9	1.5	4.7	1.9	1.4	2.5	4.8	4.0	6.8	0.1	0.0	0.3	0.2	0.0	0.7	5.2	4.0	7.0	0.0	0.0	0.0	0.7	0.0	1.4	0.5	0.2	0.9	1.3	0.5	1.9
8	Region 23	1.6	0.6	3.3	2.4	1.2	3.5	4.1	2.5	5.9	0.0	0.0	0.2	0.1	0.0	0.3	4.2	2.5	6.0	0.0	0.0	0.0	0.2	0.0	0.7	0.2	0.0	1.0	0.5	0.0	1.1
7	Region 24	3.1	0.7	6.1	2.5	1.7	4.0	5.6	3.4	7.8	0.2	0.0	0.3	0.1	0.0	0.3	5.9	3.7	7.9	0.0	0.0	0.0	0.8	0.0	1.5	0.5	0.0	1.2	1.3	0.0	2.6
12	Region 25	2.0	0.7	2.8	2.0	0.9	3.8	4.0	3.0	4.9	0.1	0.0	0.2	0.1	0.0	0.9	4.2	3.1	5.0	0.0	0.0	0.0	0.6	0.0	1.5	0.3	0.0	0.6	0.9	0.0	2.1
9	Region 26	2.2	1.3	3.8	1.8	0.4	2.8	3.9	2.3	6.6	0.1	0.0	0.2	0.1	0.0	0.5	4.1	2.3	6.8	0.0	0.0	0.0	0.6	0.0	1.3	0.3	0.0	0.8	0.9	0.4	1.6
3	Region 27	1.9	1.6	2.2	1.9	1.1	2.6	3.7	3.3	4.3	0.1	0.1	0.2	0.0	0.0	0.0	3.9	3.5	4.5	0.0	0.0	0.0	0.5	0.5	0.6	0.3	0.0	1.0	0.9	0.5	1.7
22	Region 28	2.4	0.7	6.2	1.8	0.2	3.7	4.1	0.9	8.3	0.1	0.0	0.3	0.0	0.0	0.5	4.3	1.0	8.6	0.0	0.0	0.0	0.7	0.0	2.1	0.5	0.0	1.8	1.2	0.0	3.4
38	Region 29	2.0	0.6	4.3	2.1	0.5	3.6	4.1	1.6	7.1	0.1	0.0	0.3	0.1	0.0	1.0	4.2	1.8	8.3	0.0	0.0	0.0	0.4	0.0	1.7	0.1	0.0	0.8	0.5	0.0	2.2
50	Region 30	2.0	0.7	4.2	2.0	0.9	3.8	4.0	2.1	5.7	0.1	0.0	0.3	0.1	0.0	0.9	4.2	2.2	6.4	0.0	0.0	0.0	0.3	0.0	1.5	0.3	0.0	1.6	0.6	0.0	2.2
22	Region 31	2.0	1.0	3.5	1.7	1.1	2.8	3.7	2.3	5.3	0.1	0.0	0.2	0.2	0.0	1.9	4.0	2.4	5.7	0.0	0.0	0.0	0.4	0.0	1.4	0.3	0.0	0.9	0.8	0.0	1.9
31	Region 32	1.8	0.6	3.2	1.8	0.2	3.1	3.5	1.6	5.9	0.1	0.0	0.2	0.1	0.0	0.6	3.7	1.6	5.9	0.0	0.0	0.0	0.3	0.0	1.3	0.4	0.0	1.2	0.7	0.0	2.0
18	Region 33	2.3	1.3	4.3	2.0	0.6	3.7	4.3	3.1	8.0	0.1	0.0	0.2	0.2	0.0	0.9	4.6	3.3	8.5	0.0	0.0	0.0	0.7	0.0	1.5	0.4	0.0	1.3	1.1	0.4	2.6
15	Region 34	1.9	0.7	4.4	2.1	1.2	3.9	4.0	2.3	6.4	0.1	0.0	0.2	0.1	0.0	1.1	4.3	2.5	6.8	0.0	0.0	0.0	0.5	0.0	1.5	0.3	0.0	0.8	0.8	0.0	2.1
9	Region 35	2.4	1.1	3.9	1.2	0.7	1.5	3.6	2.0	5.2	0.1	0.0	0.2	0.0	0.0	0.2	3.7	2.0	5.7	0.0	0.0	0.0	0.6	0.0	1.0	0.5	0.2	0.8	1.1	0.8	1.5
13	Region 36	1.9	0.8	3.8	1.9	1.1	3.6	3.8	2.2	6.0	0.1	0.0	0.2	0.3	0.0	1.2	4.2	2.3	6.6	0.0	0.0	0.0	0.6	0.0	1.2	0.2	0.0	0.7	0.8	0.0	1.9
354	**Ave. YM1**	2.1			2.0			4.1			0.1			0.1			4.3			0.0			0.5			0.3			0.8		
	Min. YM1		0.4			0.2			0.9			0.0			0.0			1.0			0.0			0.0			0.0			0.0	
	Max. YM1			6.2			4.0			8.3			0.3			1.9			8.6			0.0			2.1			4.4			4.4

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TABLE 4: RSA GRADING OF YELLOW MAIZE (2011/2012) (continue)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Other Colour			% Combined Deviations			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35 mm sieve			Below 6.35 mm sieve																											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: YM2																															
2	Region 12	10.2	4.2	16.2	5.2	1.7	8.8	15.4	13.0	17.9	0.2	0.1	0.3	0.3	0.0	0.5	15.9	13.7	18.0	0.0	0.0	0.0	3.8	1.5	6.1	3.7	1.8	5.5	7.5	3.3	11.6
3	Region 13	1.5	1.0	1.8	5.6	5.0	6.6	7.1	6.6	7.6	0.2	0.0	0.3	0.0	0.0	0.0	7.3	6.9	7.9	0.0	0.0	0.0	0.4	0.0	0.8	0.1	0.0	0.4	0.6	0.4	0.8
1	Region 14	1.3	-	-	4.7	-	-	6.0	-	-	0.0	-	-	0.0	-	-	6.0	-	-	0.0	-	-	0.7	-	-	0.5	-	-	1.1	-	-
1	*Region 17*	2.1	-	-	3.4	-	-	5.5	-	-	0.0	-	-	2.3	-	-	7.8	-	-	0.0	-	-	0.4	-	-	0.0	-	-	0.4	-	-
3	*Region 19*	2.0	1.2	3.0	4.9	4.5	5.5	6.9	6.4	7.6	0.0	0.0	0.0	0.0	0.0	0.0	6.9	6.4	7.6	0.0	0.0	0.0	0.4	0.3	0.4	0.0	0.0	0.0	0.4	0.3	0.4
4	Region 21	4.5	2.5	6.0	4.1	3.1	4.9	8.6	7.4	9.2	0.2	0.0	0.4	0.5	0.2	0.6	9.3	8.1	9.8	0.0	0.0	0.0	0.8	0.2	2.0	0.5	0.0	1.0	1.2	0.3	2.5
2	Region 22	10.6	8.1	13.1	3.2	2.9	3.4	13.8	11.6	16.0	0.2	0.2	0.3	0.1	0.0	0.2	14.1	12.0	16.3	0.0	0.0	0.0	2.5	1.0	3.9	2.8	0.5	5.0	5.2	1.4	9.0
2	Region 23	2.8	1.1	4.5	4.3	3.4	5.2	7.1	4.5	9.6	0.3	0.3	0.4	0.0	0.0	0.0	7.4	4.9	9.9	0.0	0.0	0.0	0.9	0.4	1.4	0.6	0.1	1.0	1.5	0.5	2.5
2	Region 24	3.0	1.6	4.3	5.1	5.0	5.1	8.0	6.6	9.4	0.1	0.0	0.2	0.1	0.0	0.2	8.3	6.6	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.6	0.3	0.0	0.6
2	Region 25	5.1	4.0	6.3	4.4	2.8	6.0	9.5	9.0	10.0	0.2	0.1	0.2	0.1	0.0	0.2	9.8	9.3	10.3	0.0	0.0	0.0	1.1	0.0	2.2	0.6	0.0	1.2	1.7	0.0	3.4
5	Region 26	3.1	1.9	6.7	6.4	2.5	9.8	9.5	6.7	12.2	0.3	0.2	0.3	0.1	0.0	0.7	9.9	7.0	12.5	0.0	0.0	0.0	1.0	0.5	2.4	0.7	0.3	1.5	1.7	1.0	3.9
4	Region 28	4.6	2.8	8.7	4.4	1.8	6.4	9.0	7.8	10.5	0.3	0.2	0.3	0.2	0.0	0.7	9.4	8.0	11.5	0.0	0.0	0.0	1.2	0.4	2.5	0.6	0.0	1.4	1.7	0.4	4.0
9	Region 29	3.7	1.0	8.7	5.0	2.8	9.7	8.7	6.5	13.0	0.2	0.0	0.4	0.4	0.0	1.7	9.3	6.5	14.3	0.0	0.0	0.0	1.1	0.0	3.2	0.4	0.0	1.5	1.5	0.0	4.7
8	Region 30	3.9	0.7	11.0	3.6	2.0	6.1	7.4	4.9	13.1	0.2	0.0	0.5	0.2	0.0	0.8	7.8	5.3	13.8	0.0	0.0	0.0	1.1	0.0	5.0	0.7	0.0	2.6	1.8	0.0	7.1
1	*Region 31*	1.5	-	-	3.4	-	-	4.9	-	-	0.5	-	-	0.1	-	-	5.5	-	-	0.0	-	-	0.0	-	-	0.5	-	-	0.5	-	-
4	Region 32	1.9	0.8	3.3	5.5	3.4	7.3	7.4	4.2	9.7	0.3	0.0	0.4	0.0	0.0	0.0	7.6	4.6	10.0	0.0	0.0	0.0	0.5	0.0	1.2	0.4	0.0	0.6	0.9	0.0	1.7
2	Region 33	2.9	2.2	3.7	4.3	3.6	4.9	7.2	7.1	7.3	0.2	0.0	0.4	0.2	0.0	0.5	7.6	7.1	8.1	0.0	0.0	0.0	1.1	0.4	1.9	0.9	0.7	1.1	2.1	1.5	2.6
2	Region 34	1.8	1.3	2.4	2.9	1.7	4.1	4.7	3.0	6.5	0.3	0.2	0.4	0.6	0.5	0.7	5.7	4.1	7.3	0.0	0.0	0.0	0.5	0.0	1.0	0.6	0.5	0.8	1.1	0.8	1.4
57	Ave. YM2	3.7			4.6			8.3			0.2			0.2			8.8			0.0			1.0			0.7			1.7		
	Min. YM2	0.7			1.7			3.0			0.0			0.0			4.1			0.0			0.0			0.0			0.0		
	Max. YM2	16.2			9.8			17.9			0.5			2.3			18.0			0.0			6.1			5.5			11.6		

TABLE 4: RSA GRADING OF YELLOW MAIZE (2011/2012) (continue)

Number of samples	Region	% Defective Kernels									% Foreign matter			% Other Colour			% Combined Deviations			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35 mm sieve			Below 6.35 mm sieve			Total defective																							
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: YM3																															
1	*Region 13*	**1.5**	-	-	**4.8**	-	-	**6.3**	-	-	0.6	-	-	0.2	-	-	7.0	-	-	0.0	-	-	0.0	-	-	0.9	-	-	0.9	-	-
1	*Region 14*	**1.5**	-	-	**13.5**	-	-	**14.9**	-	-	0.0	-	-	0.0	-	-	14.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
1	*Region 18*	**2.3**	-	-	**3.4**	-	-	**5.7**	-	-	0.6	-	-	0.2	-	-	6.4	-	-	0.0	-	-	0.4	-	-	0.0	-	-	0.4	-	-
1	Region 19	**1.0**	-	-	**13.2**	-	-	**14.2**	-	-	0.2	-	-	0.0	-	-	14.4	-	-	0.0	-	-	0.5	-	-	0.0	-	-	0.5	-	-
1	Region 23	**6.1**	-	-	**10.6**	-	-	**16.7**	-	-	0.3	-	-	0.0	-	-	17.0	-	-	0.0	-	-	2.1	-	-	1.0	-	-	3.1	-	-
1	*Region 30*	**2.0**	-	-	**2.6**	-	-	**4.6**	-	-	0.6	-	-	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
6	**Ave. YM3**	**2.4**			**8.0**			**10.4**			0.4			0.1			10.8			0.0			0.5			0.3			0.8		
	Min. YM3		1.0			2.6			4.6			0.0			0.0			5.2			0.0			0.0			0.0			0.0	
	Max .YM3			6.1			13.5			16.7			0.6			0.2			17.0			0.0			2.1			1.0			3.1
CLASS: COM																															
2	Region 19	**33.5**	0.8	66.3	**12.6**	2.3	22.9	**46.2**	3.1	89.2	1.1	0.9	1.2	0.0	0.0	0.0	47.2	4.1	90.4	0.0	0.0	0.0	3.1	0.0	6.2	1.2	0.2	2.3	4.3	0.2	8.4
1	*Region 23*	**2.9**	-	-	**5.0**	-	-	**7.9**	-	-	0.2	-	-	5.6	-	-	13.7	-	-	0.0	-	-	1.2	-	-	0.4	-	-	1.6	-	-
1	*Region 25*	**1.5**	-	-	**2.5**	-	-	**4.1**	-	-	3.6	-	-	0.0	-	-	7.7	-	-	0.0	-	-	0.0	-	-	0.4	-	-	0.4	-	-
1	*Region 28*	**1.3**	-	-	**1.3**	-	-	**2.7**	-	-	1.7	-	-	0.0	-	-	4.4	-	-	0.0	-	-	0.0	-	-	0.4	-	-	0.4	-	-
1	*Region 31*	**1.3**	-	-	**7.8**	-	-	**9.0**	-	-	0.3	-	-	5.4	-	-	14.7	-	-	0.0	-	-	0.5	-	-	0.0	-	-	0.5	-	-
6	**Ave. COM**	**12.4**			**7.0**			**19.3**			1.3			1.8			22.5			0.0			1.3			0.6			1.9		
	Min. COM		0.8			1.3			2.7			0.2			0.0			4.1			0.0			0.0			0.0			0.2	
	Max. COM			66.3			22.9			89.2			3.6			5.6			90.4			0.0			6.2			2.3			8.4
423	Ave. yellow maize	2.5			2.5			5.0			0.1			0.2			5.2			0.0			0.6			0.4			0.9		
	Min. yellow maize		0.4			0.2			0.9			0.0			0.0			1.0			0.0			0.0			0.0			0.0	
	Max. yellow maize			66.3			22.9			89.2			3.6			5.6			90.4			0.0			6.2			5.5			11.6
1000	Ave. maize	2.5			2.2			4.7			0.1			0.3			5.1			0.0			0.6			0.4			0.1		
	Min. maize		0.3			0.0			0.5			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max. maize			66.3			22.9			89.2			3.6			43.7			90.4			0.8			6.2			5.5			11.6

TABLE 6: USA GRADING OF WHITE MAIZE (2011/2012)

Number of samples	Region	Damaged kernels % Heat damaged ave.	min.	max.	% Total damaged ave.	min.	max.	% Broken corn and foreign material ave.	min.	max.	Bushel weight (lbs) ave.	min.	max.	% Other colour ave.	min.	max.
GRADE: US No.1																
9	Region 12	0.0	0.0	0.0	1.7	0.5	2.9	0.8	0.3	1.4	61.7	60.4	63.2	0.1	0.0	0.5
31	Region 13	0.0	0.0	0.0	1.9	0.8	3.0	0.8	0.3	1.6	61.3	60.2	62.5	0.2	0.0	1.2
39	Region 14	0.0	0.0	0.0	1.7	0.7	2.9	0.8	0.1	2.0	60.8	58.7	62.0	0.2	0.0	0.7
10	Region 15	0.0	0.0	0.0	1.9	0.7	2.9	0.4	0.1	0.7	61.7	60.6	63.0	0.1	0.0	0.6
26	Region 16	0.0	0.0	0.0	1.7	0.7	2.7	0.6	0.2	1.5	61.6	59.9	62.7	0.1	0.0	1.1
22	Region 17	0.0	0.0	0.0	1.9	1.1	2.9	0.6	0.2	1.3	60.9	57.3	62.3	0.2	0.0	0.7
24	Region 18	0.0	0.0	0.0	1.8	0.9	2.8	0.7	0.2	1.2	61.1	58.7	62.3	0.3	0.0	1.0
15	Region 19	0.0	0.0	0.0	2.2	0.7	3.0	0.9	0.1	1.4	61.4	60.2	62.9	0.2	0.0	0.5
7	Region 20	0.0	0.0	0.0	1.7	0.9	2.2	0.8	0.2	1.2	61.1	59.3	62.2	0.4	0.0	0.8
28	Region 21	0.0	0.0	0.0	1.8	0.4	2.8	0.8	0.2	2.0	60.7	58.7	62.1	0.2	0.0	0.7
30	Region 22	0.0	0.0	0.0	1.7	0.3	3.0	0.8	0.1	1.8	60.9	59.7	62.5	0.1	0.0	1.7
33	Region 23	0.0	0.0	0.0	1.6	0.4	3.0	0.7	0.2	1.6	61.1	59.6	62.2	0.0	0.0	0.5
17	Region 24	0.0	0.0	0.0	2.0	1.3	2.7	0.6	0.2	1.0	60.9	59.4	61.8	0.1	0.0	0.6
6	Region 25	0.0	0.0	0.0	2.3	0.9	3.0	0.7	0.4	1.2	60.3	59.0	61.7	0.4	0.0	0.6
4	Region 26	0.0	0.0	0.0	2.3	1.5	2.7	0.7	0.0	1.2	60.9	59.4	62.7	0.5	0.0	1.3
2	Region 27	0.0	0.0	0.0	2.4	2.0	2.8	0.6	0.5	0.8	59.7	59.4	60.0	0.3	0.0	0.5
10	Region 28	0.0	0.0	0.0	1.9	1.1	2.5	0.4	0.1	0.8	60.4	58.9	63.5	0.3	0.0	0.7
10	Region 29	0.0	0.0	0.0	2.1	1.2	2.8	0.5	0.1	1.2	60.5	59.7	61.7	0.3	0.0	1.1
22	Region 30	0.0	0.0	0.0	1.9	0.6	3.0	0.7	0.2	1.8	60.3	57.6	61.8	0.3	0.0	1.9
8	Region 31	0.0	0.0	0.0	1.9	1.3	2.8	0.6	0.4	0.9	60.2	59.1	61.3	0.1	0.0	0.5
26	Region 32	0.0	0.0	0.0	1.8	0.6	2.9	0.5	0.1	1.2	60.3	58.2	62.6	0.3	0.0	1.2
23	Region 33	0.0	0.0	0.0	2.0	0.8	3.0	0.6	0.2	1.4	59.7	58.0	62.1	0.4	0.0	1.2
26	Region 34	0.0	0.0	0.0	1.9	0.7	3.0	0.5	0.1	1.6	60.4	58.9	62.1	0.2	0.0	0.6
4	Region 35	0.0	0.0	0.0	2.6	2.1	2.9	0.6	0.5	0.6	62.1	60.9	63.7	0.1	0.0	0.5
9	Region 36	0.0	0.0	0.0	2.4	1.5	2.8	0.6	0.1	1.1	60.9	59.4	62.2	0.3	0.0	0.7
441	**Ave. US No.1**	**0.0**			**1.9**			**0.7**			**60.8**			**0.2**		
	Min. US No.1		**0.0**			**0.3**			**0.0**			**57.3**			**0.0**	
	Max. US No.1			**0.0**			**3.0**			**2.0**			**63.7**			**1.9**
GRADE: US No.2																
1	Region 11	0.0	-	-	3.7	-	-	1.2	-	-	61.3	-	-	0.0	-	-
2	Region 12	0.0	0.0	0.0	3.2	3.2	3.3	0.8	0.4	1.2	61.6	61.1	62.1	0.2	0.0	0.5
5	Region 13	0.0	0.0	0.0	4.0	3.1	4.8	0.9	0.3	1.3	61.0	60.1	62.0	0.3	0.0	1.0
6	Region 14	0.0	0.0	0.0	3.4	3.1	4.1	0.9	0.5	1.7	61.4	59.1	62.8	0.3	0.0	1.0
1	Region 15	0.0	-	-	4.8	-	-	1.1	-	-	60.5	-	-	0.7	-	-
3	Region 16	0.0	0.0	0.0	2.8	1.8	3.4	1.6	1.0	2.6	62.0	61.6	62.6	0.0	0.0	0.0
4	Region 17	0.0	0.0	0.0	3.6	3.1	4.5	0.6	0.2	1.0	61.5	60.5	62.1	0.0	0.0	0.0
7	Region 18	0.0	0.0	0.0	3.1	1.1	4.2	1.4	0.5	2.8	59.7	56.2	60.7	0.4	0.0	1.7
6	Region 19	0.0	0.0	0.0	4.2	3.7	4.7	1.5	1.0	2.8	60.3	59.3	62.8	0.2	0.0	0.7
2	Region 20	0.0	0.0	0.0	3.8	3.1	4.4	0.9	0.8	1.1	60.9	60.7	61.1	0.5	0.0	1.1
1	Region 21	0.0	-	-	4.8	-	-	1.4	-	-	61.8	-	-	0.2	-	-
6	Region 22	0.0	0.0	0.0	3.5	3.1	4.6	0.8	0.4	1.3	61.0	60.3	61.8	0.2	0.0	0.5
14	Region 23	0.0	0.0	0.0	2.7	1.0	3.8	1.2	0.3	2.3	60.9	55.8	62.8	0.0	0.0	0.2
5	Region 24	0.0	0.0	0.0	3.9	3.1	4.9	0.9	0.6	1.0	60.9	60.1	61.9	0.2	0.0	0.5
1	Region 26	0.0	-	-	1.9	-	-	2.5	-	-	60.9	-	-	0.5	-	-
6	Region 28	0.0	0.0	0.0	3.8	2.3	4.8	1.2	0.8	2.6	60.5	58.3	62.8	0.4	0.0	1.1
6	Region 29	0.0	0.0	0.2	3.9	3.3	4.7	0.6	0.2	1.0	59.8	57.2	60.7	0.1	0.0	0.6
6	Region 30	0.0	0.0	0.0	3.9	3.2	4.7	0.4	0.1	1.0	60.1	58.8	62.2	0.0	0.0	0.1
1	Region 32	0.0	-	-	4.0	-	-	0.1	-	-	60.5	-	-	0.0	-	-
5	Region 34	0.0	0.0	0.0	3.7	3.2	4.7	0.7	0.1	1.2	60.2	57.7	62.1	0.2	0.0	0.6
3	Region 36	0.0	0.0	0.0	3.8	3.4	4.4	0.7	0.4	1.4	61.0	60.1	62.1	0.3	0.0	0.6
91	**Ave. US No.2**	**0.0**			**3.5**			**1.0**			**60.7**			**0.2**		
	Min. US No.2		**0.0**			**1.0**			**0.1**			**55.8**			**0.0**	
	Max. US No.2			**0.2**			**4.9**			**2.8**			**62.8**			**1.7**

Number of samples	Region	Damaged kernels						% Broken corn and foreign material			Bushel weight (lbs)			% Other colour		
		% Heat damaged			% Total damaged											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US No.3																
1	Region 12	0.0	-	-	3.3	-	-	2.5	-	-	59.8	-	-	0.5	-	-
2	Region 13	0.0	0.0	0.0	5.6	5.6	5.6	0.7	0.2	1.1	60.4	60.3	60.6	0.1	0.0	0.2
1	Region 14	0.0	-	-	5.5	-	-	0.1	-	-	60.6	-	-	0.0	-	-
2	Region 15	0.0	0.0	0.0	5.7	5.3	6.0	0.6	0.2	1.1	61.3	61.1	61.4	0.1	0.0	0.3
2	Region 18	0.0	0.0	0.0	5.5	5.2	5.8	0.8	0.6	1.0	58.1	57.6	58.7	0.2	0.0	0.3
3	Region 19	0.0	0.0	0.0	5.6	5.1	6.2	0.7	0.3	1.0	59.8	58.4	62.0	0.4	0.0	1.0
2	Region 22	0.0	0.0	0.0	5.1	5.1	5.1	0.6	0.6	0.6	59.2	58.7	59.7	0.2	0.0	0.5
3	Region 23	0.0	0.0	0.0	6.0	5.1	6.9	1.0	0.5	1.5	60.6	60.3	60.9	0.1	0.0	0.4
2	Region 26	0.0	0.0	0.0	3.2	1.3	5.1	2.2	1.3	3.2	58.4	58.3	58.6	1.0	0.6	1.4
3	Region 29	0.0	0.0	0.0	5.9	5.3	6.3	0.7	0.4	1.2	59.0	58.1	60.6	0.7	0.0	1.6
1	Region 30	0.0	-	-	5.4	-	-	1.1	-	-	57.4	-	-	1.4	-	-
1	Region 33	0.0	-	-	6.9	-	-	0.8	-	-	59.4	-	-	0.3	-	-
1	Region 36	0.0	-	-	6.1	-	-	0.6	-	-	60.3	-	-	0.8	-	-
24	**Ave. US No.3**	**0.0**			**5.4**			**0.9**			**59.6**			**0.4**		
	Min. US No.3		**0.0**			**1.3**			**0.1**			**57.4**			**0.0**	
	Max. US No.3			**0.0**			**6.9**			**3.2**			**62.0**			**1.6**
GRADE: US No.4																
3	Region 13	0.0	0.0	0.0	8.6	8.2	9.3	1.1	0.8	1.2	59.9	58.2	61.3	0.9	0.0	1.5
1	Region 14	0.0	-	-	9.2	-	-	0.4	-	-	58.0	-	-	0.0	-	-
1	Region 20	0.0	-	-	3.7	-	-	4.1	-	-	57.4	-	-	0.1	-	-
1	Region 22	0.0	-	-	9.5	-	-	0.9	-	-	59.7	-	-	0.5	-	-
1	Region 28	0.0	-	-	8.5	-	-	0.6	-	-	57.3	-	-	0.8	-	-
1	Region 30	0.0	-	-	7.8	-	-	0.8	-	-	58.6	-	-	0.0	-	-
8	**Ave. US No.4**	**0.0**			**8.1**			**1.2**			**58.8**			**0.5**		
	Min. US No.4		**0.0**			**3.7**			**0.4**			**57.3**			**0.0**	
	Max. US No.4			**0.0**			**9.5**			**4.1**			**61.3**			**1.5**
GRADE: US No.5																
1	Region 12	0.0	-	-	11.2	-	-	0.3	-	-	59.3	-	-	0.5	-	-
1	*Region 16*	*0.0*	*-*	*-*	*2.3*	*-*	*-*	*0.9*	*-*	*-*	*47.6*	*-*	*-*	*0.5*	*-*	*-*
1	Region 17	0.0	-	-	11.1	-	-	0.6	-	-	59.5	-	-	0.5	-	-
1	Region 19	0.0	-	-	11.9	-	-	0.9	-	-	57.3	-	-	1.6	-	-
1	*Region 22*	*0.0*	*-*	*-*	*1.9*	*-*	*-*	*5.2*	*-*	*-*	*59.7*	*-*	*-*	*0.0*	*-*	*-*
1	Region 23	0.0	-	-	12.0	-	-	0.9	-	-	58.7	-	-	1.0	-	-
1	Region 30	0.0	-	-	12.8	-	-	0.5	-	-	60.7	-	-	0.0	-	-
7	**Ave. US No.5**	**0.0**			**9.0**			**1.3**			**57.5**			**0.6**		
	Min. US No.5		**0.0**			**1.9**			**0.3**			**47.6**			**0.0**	
	Max.US No.5			**0.0**			**12.8**			**5.2**			**60.7**			**1.6**
GRADE: Mixed Grade																
1	Region 19	0.0	-	-	4.3	-	-	1.6	-	-	59.7	-	-	43.7	-	-
1	Region 20	0.0	-	-	3.8	-	-	2.9	-	-	58.0	-	-	3.2	-	-
2	*Region 21*	*0.0*	*0.0*	*0.0*	*1.9*	*1.4*	*2.5*	*1.8*	*0.3*	*3.3*	*60.4*	*60.3*	*60.4*	*4.3*	*2.8*	*5.8*
1	*Region 30*	*0.0*	*-*	*-*	*5.0*	*-*	*-*	*0.6*	*-*	*-*	*58.5*	*-*	*-*	*4.1*	*-*	*-*
1	Region 34	0.0	-	-	1.8	-	-	0.6	-	-	61.3	-	-	2.5	-	-
6	**Ave. Mixed Grade**	**0.0**			**3.1**			**1.6**			**59.7**			**10.3**		
	Min. Mixed Grade		**0.0**			**1.4**			**0.3**			**58.0**			**2.5**	
	Max. Mixed Grade			**0.0**			**5.0**			**3.3**			**61.3**			**43.7**
577	**Ave. white maize**	**0.0**			**2.5**			**0.8**			**60.7**			**0.3**		
	Min. white maize		**0.0**			**0.3**			**0.0**			**47.6**			**0.0**	
	Max. white maize			**0.2**			**12.8**			**5.2**			**63.7**			**43.7**
1000	**Ave. maize**	**0.0**			**2.5**			**0.8**			**60.0**			**0.2**		
	Min. maize		**0.0**			**0.3**			**0.0**			**47.6**			**0.0**	
	Max. maize			**0.5**			**66.3**			**9.8**			**63.7**			**43.7**

TABLE 7: USA GRADING OF YELLOW MAIZE (2011/2012)

Number of samples	Region	Damaged kernels						% Broken corn and foreign material			Bushel weight (lbs)			% Other colour		
		% Heat damaged			% Total damaged											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US No.1																
4	Region 10	0.0	0.0	0.0	1.2	0.4	1.8	0.7	0.6	0.9	60.2	59.3	61.3	0.1	0.0	0.5
14	Region 11	0.0	0.0	0.0	1.4	0.4	2.7	0.5	0.1	1.0	60.1	58.9	61.8	0.0	0.0	0.0
2	Region 12	0.0	0.0	0.0	2.3	1.7	3.0	0.8	0.5	1.2	59.1	58.1	60.1	0.0	0.0	0.0
8	Region 13	0.0	0.0	0.0	1.7	0.9	2.7	1.0	0.1	1.6	59.8	59.0	60.6	0.3	0.0	1.0
9	Region 14	0.0	0.0	0.0	1.8	1.1	2.9	0.6	0.2	1.0	60.0	59.0	61.4	0.2	0.0	1.2
2	Region 15	0.0	0.0	0.0	2.3	2.2	2.5	0.5	0.4	0.5	60.9	60.7	61.1	0.0	0.0	0.0
3	Region 16	0.0	0.0	0.0	1.6	1.2	2.2	0.8	0.5	1.3	58.8	58.5	59.4	0.4	0.2	0.6
8	Region 17	0.0	0.0	0.0	1.7	0.8	2.6	1.0	0.2	1.6	59.7	57.7	61.4	0.4	0.0	2.3
11	Region 18	0.0	0.0	0.0	1.8	0.6	2.3	0.8	0.6	1.4	59.8	59.0	60.3	0.1	0.0	0.5
9	Region 19	0.0	0.0	0.0	1.3	0.7	1.9	1.3	0.8	1.7	59.8	58.3	61.0	0.1	0.0	0.6
4	Region 20	0.0	0.0	0.0	1.2	0.6	2.0	1.2	0.8	1.7	59.9	59.4	60.6	0.0	0.0	0.0
6	Region 21	0.0	0.0	0.0	2.2	1.5	2.9	0.7	0.3	1.0	59.3	58.3	60.1	0.1	0.0	0.6
3	Region 22	0.0	0.0	0.0	2.3	1.2	3.0	0.6	0.5	0.8	59.1	56.8	61.1	0.2	0.0	0.7
8	Region 23	0.0	0.0	0.0	1.4	0.6	2.3	0.8	0.4	1.8	59.9	58.7	61.1	0.1	0.0	0.3
3	Region 24	0.0	0.0	0.0	1.0	0.7	1.6	0.6	0.6	0.9	59.9	59.7	60.5	0.2	0.0	0.3
12	Region 25	0.0	0.0	0.0	2.0	0.7	2.9	0.8	0.4	1.3	59.2	57.3	62.7	0.1	0.0	0.9
9	Region 26	0.0	0.0	0.0	2.0	1.1	2.8	0.7	0.0	1.7	59.0	57.4	60.4	0.1	0.0	0.5
3	Region 27	0.0	0.0	0.0	1.9	1.6	2.2	0.8	0.4	1.1	59.8	58.9	61.6	0.0	0.0	0.0
18	Region 28	0.0	0.0	0.0	1.9	0.7	3.0	0.8	0.1	1.9	58.7	56.9	60.5	0.0	0.0	0.5
35	Region 29	0.0	0.0	0.0	1.7	0.3	2.8	0.6	0.0	1.5	59.0	56.1	61.3	0.0	0.0	0.7
48	Region 30	0.0	0.0	0.0	1.8	0.7	2.9	0.6	0.1	1.6	59.1	56.1	61.5	0.1	0.0	0.9
22	Region 31	0.0	0.0	0.0	1.9	0.8	3.0	0.7	0.2	1.7	59.0	57.1	61.0	0.2	0.0	1.9
31	Region 32	0.0	0.0	0.0	1.7	0.6	3.0	0.6	0.0	1.5	59.6	57.9	61.1	0.1	0.0	0.6
17	Region 33	0.0	0.0	0.0	2.1	1.3	2.9	0.7	0.3	1.3	58.4	56.5	60.7	0.2	0.0	0.9
15	Region 34	0.0	0.0	0.0	1.6	0.7	2.6	0.8	0.4	1.7	59.5	57.4	60.7	0.2	0.0	1.1
8	Region 35	0.0	0.0	0.0	2.2	1.1	2.9	0.5	0.2	0.7	60.0	58.6	61.7	0.0	0.0	0.0
10	Region 36	0.0	0.0	0.0	1.6	0.8	2.3	0.6	0.2	0.8	60.1	57.3	62.9	0.3	0.0	1.2
322	Ave. US No.1	0.0			1.8			0.7			59.4			0.1		
	Min. US No.1		0.0			0.3			0.0			56.1			0.0	
	Max. US No.1			0.0			3.0			1.9			62.9			2.3
GRADE: US No.2																
5	Region 11	0.0	0.0	0.0	3.9	3.2	4.7	0.7	0.2	1.3	59.5	58.6	60.4	0.0	0.0	0.1
3	Region 12	0.0	0.0	0.0	3.6	3.3	4.0	0.7	0.6	0.8	60.4	59.0	62.1	0.4	0.0	1.1
3	Region 13	0.0	0.0	0.0	3.1	1.8	3.7	1.7	1.1	2.3	60.2	58.0	62.1	0.2	0.0	0.5
3	Region 14	0.0	0.0	0.0	3.0	1.3	4.2	1.2	0.6	2.1	59.6	58.6	60.9	0.0	0.0	0.0
1	Region 15	0.0	-	-	3.2	-	-	0.5	-	-	60.3	-	-	0.0	-	-
2	Region 16	0.0	0.0	0.0	3.3	3.2	3.3	0.6	0.6	0.6	60.9	60.5	61.3	0.0	0.0	0.0
2	Region 17	0.0	0.0	0.0	4.4	4.2	4.7	0.9	0.9	0.9	58.3	56.3	60.2	0.0	0.0	0.0
1	Region 18	0.0	-	-	4.2	-	-	0.8	-	-	59.7	-	-	0.0	-	-
1	Region 19	0.0	-	-	4.1	-	-	1.1	-	-	58.6	-	-	0.0	-	-
1	Region 20	0.0	-	-	4.6	-	-	0.7	-	-	58.7	-	-	1.0	-	-
3	Region 21	0.0	0.0	0.0	3.9	3.4	4.7	1.1	0.7	1.7	58.8	57.0	59.7	0.2	0.0	0.6
1	Region 22	0.0	-	-	4.7	-	-	0.7	-	-	59.8	-	-	0.2	-	-
2	Region 23	0.0	0.0	0.0	4.0	3.3	4.7	1.8	1.2	2.3	57.6	55.1	60.2	0.0	0.0	0.0
4	Region 24	0.0	0.0	0.0	3.5	1.6	4.6	1.8	1.0	2.7	58.7	56.6	61.0	0.1	0.0	0.2
1	Region 25	0.0	-	-	4.0	-	-	1.9	-	-	57.6	-	-	0.2	-	-
1	Region 26	0.0	-	-	3.8	-	-	1.2	-	-	59.5	-	-	0.0	-	-
7	Region 28	0.0	0.0	0.0	3.2	0.8	4.4	1.5	0.5	2.4	57.8	55.1	59.7	0.0	0.0	0.0
8	Region 29	0.0	0.0	0.0	3.2	0.9	4.4	1.1	0.3	2.5	57.2	54.4	59.8	0.3	0.0	1.0
9	Region 30	0.0	0.0	0.0	3.0	1.3	4.1	0.9	0.5	2.0	57.7	54.2	61.0	0.2	0.0	0.8
1	Region 31	0.0	-	-	3.7	-	-	0.8	-	-	59.7	-	-	0.0	-	-
3	Region 32	0.0	0.0	0.0	1.8	0.8	3.3	2.6	2.1	2.9	58.5	57.0	59.4	0.1	0.0	0.2
3	Region 33	0.0	0.0	0.0	3.9	3.6	4.3	1.2	0.5	1.6	58.9	57.9	59.7	0.3	0.0	0.5

Number of samples	Region	Damaged kernels						% Broken corn and foreign material			Bushel weight (lbs)			% Other colour		
		% Heat damaged			% Total damaged											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
2	Region 34	0.0	0.0	0.0	4.0	3.5	4.5	0.8	0.7	0.8	59.3	59.3	59.4	0.1	0.0	0.2
1	Region 35	0.0	-	-	3.9	-	-	0.6	-	-	59.7	-	-	0.2	-	-
3	Region 36	0.0	0.0	0.0	3.1	2.1	3.8	0.8	0.4	1.2	57.0	54.1	60.1	0.1	0.0	0.4
71	Ave. US No.2	0.0			3.4			1.2			58.6			0.1		
	Min. US No.2		0.0			0.8			0.2			54.1			0.0	
	Max. US No.2			0.0			4.7			2.9			62.1			1.1
GRADE: US No.3																
1	Region 13	0.0	-	-	1.3	-	-	3.2	-	-	57.6	-	-	0.0	-	-
2	Region 21	0.0	0.0	0.0	5.7	5.3	6.1	1.4	1.3	1.5	58.7	58.4	58.9	0.4	0.2	0.5
2	Region 24	0.0	0.0	0.0	5.8	5.3	6.2	0.7	0.7	0.7	61.1	59.8	62.3	0.0	0.0	0.0
1	Region 25	0.0	-	-	6.4	-	-	1.2	-	-	58.3	-	-	0.0	-	-
3	Region 26	0.0	0.0	0.0	3.8	2.3	6.9	2.7	1.0	3.9	59.1	58.0	60.1	0.2	0.0	0.7
1	Region 28	0.0	-	-	6.5	-	-	1.1	-	-	56.5	-	-	0.0	-	-
3	Region 29	0.2	0.0	0.5	4.9	4.1	5.3	1.5	1.4	1.8	56.7	53.4	58.8	0.7	0.0	1.7
1	Region 32	0.0	-	-	2.1	-	-	3.5	-	-	57.8	-	-	0.0	-	-
14	Ave. US No.3	0.0			4.7			1.9			58.4			0.3		
	Min. US No.3		0.0			1.3			0.7			53.4			0.0	
	Max. US No.3			0.5			6.9			3.9			62.3			1.7
GRADE: US No.4																
1	Region 12	0.0	-	-	4.4	-	-	4.7	-	-	57.4	-	-	0.5	-	-
1	Region 22	0.0	-	-	8.3	-	-	1.7	-	-	59.7	-	-	0.2	-	-
1	Region 25	0.0	-	-	1.1	-	-	4.4	-	-	58.8	-	-	0.0	-	-
1	Region 26	0.0	-	-	2.5	-	-	4.4	-	-	59.0	-	-	0.0	-	-
1	Region 28	0.0	-	-	8.8	-	-	0.8	-	-	57.9	-	-	0.7	-	-
1	Region 29	0.0	-	-	8.9	-	-	2.1	-	-	57.4	-	-	1.0	-	-
1	Region 30	0.0	-	-	7.3	-	-	1.1	-	-	58.7	-	-	0.0	-	-
7	Ave. US No.4	0.0			5.9			2.7			58.4			0.4		
	Min. US No.4		0.0			1.1			0.8			57.4			0.0	
	Max. US No.4			0.0			8.9			4.7			59.7			1.0
GRADE: US No.5																
1	Region 14	0.0	-	-	1.5	-	-	5.7	-	-	59.0	-	-	0.0	-	-
1	Region 19	0.0	-	-	1.2	-	-	6.8	-	-	56.6	-	-	0.0	-	-
1	Region 22	0.0	-	-	13.4	-	-	1.3	-	-	58.0	-	-	0.0	-	-
1	Region 23	0.0	-	-	6.4	-	-	5.7	-	-	52.9	-	-	0.0	-	-
1	Region 30	0.0	-	-	11.2	-	-	0.9	-	-	58.5	-	-	0.5	-	-
5	Ave. US No.5	0.0			6.7			4.1			57.0			0.1		
	Min. US No.5		0.0			1.2			0.9			52.9			0.0	
	Max. US No.5			0.0			13.4			6.8			59.0			0.5
GRADE: Mixed Grade																
1	Region 23	0.0	-	-	3.1	-	-	2.7	-	-	58.3	-	-	5.6	-	-
1	Region 31	0.0	-	-	1.6	-	-	4.2	-	-	58.1	-	-	5.4	-	-
2	Ave. Sample Grade	0.0			2.3			3.5			58.2			5.5		
	Min. Sample Grade		0.0			1.6			2.7			58.1			5.4	
	Max. Sample Grade			0.0			3.1			4.2			58.3			5.6
GRADE: Sample Grade																
1	Region 12	0.0	-	-	16.2	-	-	0.8	-	-	60.1	-	-	0.0	-	-
1	Region 19	0.0	-	-	66.3	-	-	9.8	-	-	54.3	-	-	0.0	-	-
2	Ave. Sample Grade	0.0			41.2			5.3			57.2			0.0		
	Min. Sample Grade		0.0			16.2			0.8			54.3			0.0	
	Max. Sample Grade			0.0			66.3			9.8			60.1			0.0
423	Ave. yellow maize	0.0			2.5			0.9			59.1			0.2		
	Min. yellow maize		0.0			0.3			0.0			52.9			0.0	
	Max. yellow maize			0.5			66.3			9.8			62.9			5.6
1000	Ave. maize	0.0			2.5			0.8			60.0			0.2		
	Min. maize		0.0			0.3			0.0			47.6			0.0	
	Max. maize			0.5			66.3			9.8			63.7			43.7

TABLE 10: PHYSICAL QUALITY FACTORS OF WHITE MAIZE ACCORDING TO GRADE (2011/2012)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%) Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			Breakage susceptibility (%) < 6.35 mm sieve			< 4.75 mm sieve			Stress cracks (%)			Milling index		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM1																												
1	Region 11	78.9	-	-	33.3	-	-	15.8	-	-	65.0	-	-	19.2	-	-	2.1	-	-	1.0	-	-	2	-	-	100.4	-	-
11	Region 12	79.4	77.7	81.3	32.1	28.3	38.0	19.2	7.0	33.1	65.1	59.2	68.9	15.7	6.2	26.0	0.7	0.2	1.3	0.6	0.0	1.3	4	0	10	100.1	92.5	108.9
31	Region 13	79.0	77.5	80.5	30.1	25.1	37.9	13.6	6.5	34.7	68.2	51.6	74.7	18.2	7.9	39.9	0.7	0.1	1.5	0.5	0.0	1.3	4	0	17	101.2	94.3	107.6
43	Region 14	78.4	75.5	80.9	30.6	20.7	37.3	16.9	2.4	25.9	66.8	48.4	74.5	16.3	8.1	49.2	0.8	0.0	3.2	0.5	0.0	2.5	6	0	16	98.9	84.2	111.7
11	Region 15	79.3	78.0	81.1	32.0	27.2	35.9	26.3	16.3	34.4	63.1	57.4	66.4	10.6	5.2	18.7	0.6	0.2	1.4	0.4	0.1	0.8	6	2	23	93.1	82.8	103.4
24	Region 16	79.4	77.1	80.7	32.5	27.1	39.0	22.9	3.7	37.7	62.6	51.1	70.3	14.6	5.4	44.1	0.7	0.0	1.3	0.4	0.0	0.9	6	2	14	99.6	95.3	109.2
24	Region 17	78.5	73.8	80.2	29.4	25.0	32.7	13.2	7.0	26.8	65.4	58.5	71.4	21.5	8.0	33.9	0.8	0.3	1.5	0.5	0.2	1.1	5	0	10	96.4	71.5	106.0
28	Region 18	78.4	75.6	80.2	31.6	27.7	35.2	17.8	6.7	30.2	65.2	56.5	74.4	17.0	3.2	26.5	0.8	0.2	1.4	0.6	0.0	1.1	6	0	16	94.9	82.0	104.5
17	Region 19	78.8	76.5	81.0	31.9	24.8	37.7	21.7	4.5	47.5	62.8	49.6	72.4	15.5	2.9	39.5	0.8	0.2	2.4	0.6	0.0	1.5	5	2	12	98.3	81.2	105.1
9	Region 20	78.6	76.3	80.1	32.6	28.9	34.8	17.8	9.9	28.7	65.3	59.0	74.2	16.9	9.6	30.0	0.6	0.1	1.5	0.4	0.1	0.8	4	1	9	96.3	87.3	103.5
27	Region 21	78.2	76.3	80.0	28.4	25.6	31.6	15.4	5.5	24.8	65.4	58.9	72.0	19.2	10.5	30.0	0.7	0.1	1.4	0.5	0.0	1.1	4	0	11	93.3	84.6	99.3
35	Region 22	78.3	75.6	80.5	30.7	25.3	34.0	22.6	10.5	36.7	65.8	55.2	75.6	11.7	7.4	18.6	0.8	0.3	2.6	0.6	0.3	2.2	4	1	25	96.4	90.7	102.7
43	Region 23	78.8	77.6	80.8	31.3	23.0	36.5	24.3	5.4	43.5	63.9	50.2	76.3	11.8	6.3	27.2	0.8	0.1	3.1	0.6	0.0	2.8	4	0	14	95.5	88.0	103.9
21	Region 24	78.4	76.4	79.7	31.4	26.5	37.3	21.8	8.1	37.2	64.3	55.0	73.1	13.8	7.3	25.3	0.8	0.2	1.7	0.6	0.2	1.2	6	0	11	93.1	79.8	108.6
6	Region 25	77.7	76.0	79.4	29.8	26.8	32.7	13.6	5.5	23.1	67.4	55.1	75.5	19.0	8.7	39.4	0.8	0.3	2.1	0.5	0.2	1.2	8	3	18	92.6	89.1	97.2
4	Region 26	78.4	76.5	80.7	28.7	26.8	31.3	9.1	7.0	12.6	60.6	43.2	72.9	30.3	19.9	44.2	0.8	0.4	1.3	0.5	0.3	0.7	3	1	3	94.4	83.2	100.9
2	Region 27	76.9	76.5	77.2	28.2	28.0	29.6	11.5	1.2	21.8	60.5	59.4	61.6	28.0	18.8	37.2	1.3	1.2	1.4	0.3	0.1	0.4	3	2	4	84.7	80.7	88.6
15	Region 28	78.0	75.8	81.7	31.9	24.6	40.0	18.0	10.1	31.5	68.2	61.3	76.4	13.8	5.1	21.9	0.6	0.1	2.0	0.4	0.1	1.6	5	0	13	91.2	78.4	102.7
15	Region 29	77.6	73.6	79.4	30.6	23.7	37.9	18.3	1.5	36.7	64.2	45.2	70.4	17.5	2.8	53.3	0.5	0.0	1.2	0.4	0.0	1.2	5	1	13	85.1	69.2	90.7
27	Region 30	77.6	74.1	80.1	31.2	24.4	41.8	17.2	3.6	50.2	64.3	45.7	77.1	18.5	4.1	31.5	0.7	0.0	2.6	0.6	0.0	2.2	5	0	17	89.8	75.4	102.9
8	Region 31	77.5	76.1	78.9	31.5	29.3	34.2	17.3	8.2	27.8	67.1	62.3	70.8	15.6	9.9	23.6	0.5	0.2	1.0	0.4	0.2	0.7	2	1	4	89.1	78.5	96.9
27	Region 32	77.7	74.9	80.6	32.8	28.4	37.0	19.1	2.7	39.8	63.9	52.4	75.6	17.0	4.9	28.4	0.7	0.1	1.8	0.6	0.1	1.2	5	1	14	80.8	67.0	90.6
22	Region 33	77.0	74.6	80.0	30.0	25.0	35.2	17.7	0.8	32.2	66.3	56.4	72.7	16.0	8.8	31.4	0.5	0.2	0.9	0.3	0.0	0.8	4	1	9	78.3	59.0	96.4
32	Region 34	77.7	74.3	79.9	31.9	27.7	36.2	19.7	5.1	34.6	64.9	54.7	77.5	15.3	5.2	40.2	1.0	0.1	2.6	0.7	0.0	2.0	6	0	16	85.0	70.5	103.4
4	Region 35	79.9	78.4	82.0	33.9	30.9	36.9	15.5	4.8	29.4	61.4	57.4	64.0	23.1	7.6	33.8	0.7	0.1	1.3	0.6	0.1	1.0	6	1	11	90.9	78.7	114.2
11	Region 36	78.5	76.4	80.1	37.0	34.6	41.0	21.1	13.9	33.6	67.7	60.2	79.7	11.2	6.2	20.1	1.0	0.7	1.4	0.7	0.5	1.0	10	2	17	98.0	84.8	107.2
498	Ave. WM1	78.3			31.2			18.8			65.2			16.0			0.8			0.5			5			93.2		
	Min. WM1		73.6			20.7			0.8			43.2			2.8			0.0			0.0			0			59.0	
	Max. WM1			82.0			41.8			50.2			79.7			53.3			3.2			2.8			25			114.2

TABLE 10: PHYSICAL QUALITY FACTORS OF WHITE MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%) Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			Breakage susceptibility (%) < 6.35 mm sieve			< 4.75 mm sieve			Stress cracks (%)			Milling index		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM2																												
2	Region 12	76.7	76.3	77.0	27.3	22.2	32.3	21.0	6.0	36.0	61.3	58.6	64.0	17.7	5.4	30.0	1.1	1.0	1.2	0.4	0.2	0.6	5	3	6	98.5	95.8	101.1
9	Region 13	77.7	74.9	78.9	30.1	27.5	32.5	15.6	8.5	21.3	67.7	63.1	73.6	16.7	7.2	24.4	0.9	0.2	2.1	0.7	0.1	1.7	5	2	9	98.8	85.2	106.5
4	Region 14	78.0	74.6	80.0	33.1	31.0	36.0	20.2	17.6	21.9	63.0	59.3	67.1	16.8	12.6	23.1	1.2	0.7	2.0	1.0	0.4	1.9	12	6	20	98.2	93.2	104.6
1	Region 15	77.9	-	-	44.4	-	-	31.1	-	-	61.6	-	-	7.3	-	-	1.1	-	-	0.7	-	-	8	-	-	94.5	-	-
6	*Region 16*	*79.2*	*78.5*	*79.7*	*32.7*	*30.7*	*34.9*	*23.1*	*17.4*	*25.6*	*66.4*	*62.4*	*73.0*	*10.4*	*8.4*	*14.8*	*0.5*	*0.2*	*0.6*	*0.3*	*0.2*	*0.4*	*4*	*3*	*7*	*97.3*	*96.2*	*99.3*
3	Region 17	78.4	76.6	79.8	28.2	27.3	29.3	9.1	7.6	11.1	65.4	61.7	67.7	25.5	23.7	27.2	0.9	0.6	1.2	0.8	0.4	1.2	4	3	6	97.8	93.7	100.3
5	Region 18	75.8	72.3	79.3	34.2	30.3	39.4	31.8	11.6	63.3	56.8	33.7	66.8	11.5	3.0	21.6	1.8	0.8	3.1	1.2	0.5	2.3	8	1	20	92.0	84.3	99.2
7	Region 19	77.4	75.2	80.9	32.7	27.4	37.8	17.2	6.5	27.6	64.4	60.2	70.9	18.4	10.5	32.4	1.4	0.6	2.2	1.1	0.6	1.5	6	0	15	96.3	82.1	117.0
3	Region 21	78.3	77.7	79.5	27.7	27.3	28.2	9.9	4.9	15.3	59.3	52.4	64.4	30.8	20.3	42.7	0.7	0.3	0.9	0.4	0.2	0.7	4	2	6	101.2	97.7	107.0
4	Region 22	77.2	76.8	77.9	29.2	28.5	29.7	19.7	16.1	24.6	65.0	64.1	66.5	15.3	10.5	19.8	0.9	0.5	1.3	0.6	0.4	0.9	4	2	6	91.3	87.7	93.3
4	Region 23	78.2	77.6	78.8	32.7	30.9	34.4	24.2	20.9	27.2	64.8	64.1	65.7	11.0	8.7	14.7	1.9	0.4	5.3	1.4	0.3	3.9	7	3	9	90.2	86.4	94.1
1	*Region 24*	*77.5*	-	-	*30.3*	-	-	*17.8*	-	-	*68.5*	-	-	*13.7*	-	-	*0.8*	-	-	*0.6*	-	-	*7*	-	-	*93.6*	-	-
3	Region 26	76.3	75.0	78.4	24.2	21.1	27.8	3.2	1.2	6.6	50.8	36.4	58.7	46.0	36.1	62.4	1.2	0.8	1.9	0.7	0.3	1.1	11	3	24	94.7	90.9	97.0
2	Region 28	74.4	73.7	75.1	29.7	25.4	34.0	9.7	6.1	13.2	62.9	59.4	66.3	27.5	20.5	34.5	2.3	0.6	4.1	1.5	0.0	3.0	12	4	20	85.1	84.5	85.6
4	Region 29	76.2	74.8	78.0	26.9	17.4	32.8	13.6	1.4	23.9	56.0	26.2	68.0	30.5	9.5	72.4	0.8	0.6	1.5	0.4	0.3	0.6	6	2	10	87.1	83.1	93.2
4	Region 30	75.2	73.9	76.0	33.0	21.7	43.6	29.5	19.9	48.8	54.4	45.8	61.9	16.2	5.4	31.6	1.5	0.7	1.9	0.9	0.2	1.2	9	2	18	89.3	83.4	92.2
1	Region 33	76.5	-	-	35.0	-	-	29.2	-	-	59.9	-	-	10.9	-	-	3.1	-	-	1.9	-	-	16	-	-	96.9	-	-
2	Region 36	77.5	77.4	77.6	36.8	35.3	38.3	20.9	8.4	33.4	64.2	58.0	70.3	15.0	8.6	21.3	2.3	1.1	3.4	1.8	0.9	2.6	7	6	8	91.1	82.0	100.1
65	**Ave. WM2**	**77.3**			31.2			19.0			62.3			18.7			1.2			0.8			7			94.6		
	Min. WM2		72.3			17.4			1.2			26.2			3.0			0.2			0.0			0			82.0	
	Max. WM2			80.9			44.4			63.3			73.6			72.4			5.3			3.9			24			117.0

TABLE 10: PHYSICAL QUALITY FACTORS OF WHITE MAIZE ACCORDING TO GRADE (2011/2012)
(continue)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%)									Breakage susceptibility (%)						Stress cracks (%)			Milling index		
								Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			< 6.35 mm sieve			< 4.75 mm sieve								
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM3																												
1	Region 19	73.7	-	-	27.5	-	-	7.0	-	-	64.5	-	-	28.5	-	-	1.6	-	-	1.3	-	-	7	-	-	93.7	-	-
1	Region 21	75.6	-	-	30.5	-	-	8.9	-	-	67.7	-	-	23.4	-	-	0.5	-	-	0.4	-	-	3	-	-	87.0	-	-
1	Region 22	76.9	-	-	25.2	-	-	10.9	-	-	75.1	-	-	14.0	-	-	0.3	-	-	0.0	-	-	0	-	-	93.0	-	-
4	Region 23	75.5	71.8	78.0	30.2	29.3	31.6	24.6	20.4	29.4	66.2	61.8	69.0	9.2	6.6	10.8	1.9	0.5	4.4	1.5	0.5	3.6	12	7	18	94.2	85.9	98.7
1	Region 30	78.2	-	-	37.3	-	-	34.8	-	-	58.4	-	-	6.8	-	-	8.6	-	-	4.9	-	-	19	-	-	93.0	-	-
8	Ave. WM3	75.8			30.1			20.0			66.3			13.7			2.3			1.6			10			93.0		
	Min. WM3		71.8			25.2			7.0			58.4			6.6			0.3			0.0			0			85.9	
	Max. WM3			78.2			37.3			34.8			75.1			28.5			8.6			4.9			19			98.7
CLASS: COM																												
1	Region 13	78.4	-	-	33.9	-	-	14.0	-	-	68.6	-	-	17.4	-	-	0.3	-	-	0.3	-	-	1	-	-	102.2	-	-
1	Region 15	79.0	-	-	34.8	-	-	28.9	-	-	62.5	-	-	8.6	-	-	3.1	-	-	2.0	-	-	19	-	-	91.6	-	-
1	Region 19	76.9	-	-	36.2	-	-	24.5	-	-	62.5	-	-	13.0	-	-	1.8	-	-	1.4	-	-	10	-	-	107.7	-	-
2	Region 20	74.3	73.9	74.6	28.4	24.1	32.6	3.7	1.6	5.7	70.0	68.5	71.4	26.4	25.8	27.0	0.8	0.1	1.5	0.4	0.1	0.7	9	9	9	84.5	82.8	86.1
1	Region 33	75.1	-	-	30.0	-	-	17.0	-	-	71.6	-	-	11.4	-	-	0.5	-	-	0.3	-	-	5	-	-	60.6	-	-
6	Ave. COM	76.3			31.9			15.3			67.5			17.2			1.2			0.8			9			88.5		
	Min. COM		73.9			24.1			1.6			62.5			8.6			0.1			0.1			1			60.6	
	Max. COM			79.0			36.2			28.9			71.6			27.0			3.1			2.0			19			107.7
577	Ave. white maize	78.2			31.2			18.8			64.9			16.3			0.8			0.6			5			93.3		
	Min. white maize		71.8			17.4			0.8			26.2			2.8			0.0			0.0			0			59.0	
	Max. white maize			82.0			44.4			63.3			79.7			72.4			8.6			4.9			25			117.0
1000	Ave. maize	77.3			30.4			15.6			64.5			19.9			1.0			0.7			6			91.0		
	Min. maize		68.1			14.5			0.0			13.7			2.8			0.0			0.0			0			53.0	
	Max. maize			82.0			44.4			63.3			79.7			86.3			15.6			8.3			27			117.0

TABLE 11: PHYSICAL QUALITY FACTORS OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%) Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			Breakage susceptibility (%) < 6.35 mm sieve			< 4.75 mm sieve			Stress cracks (%)			Milling index		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: YM1																												
4	Region 10	77.5	76.3	78.9	36.7	33.9	40.0	7.2	3.9	11.8	71.8	69.1	75.2	21.0	16.2	27.0	1.2	1.0	1.4	1.0	0.7	1.3	12	6	17	83.5	80.9	88.0
19	Region 11	77.2	75.4	79.5	32.3	25.5	38.1	4.1	0.6	8.9	58.2	38.9	70.9	36.7	20.2	59.7	1.1	0.3	2.1	1.0	0.3	2.1	6	1	13	86.3	75.0	99.2
5	Region 12	77.1	74.8	80.0	31.1	25.3	36.1	9.3	2.6	15.7	66.0	58.2	71.2	24.7	17.4	39.2	1.7	0.8	2.8	1.4	0.7	2.4	6	0	10	95.3	82.4	103.6
8	Region 13	77.5	76.0	80.0	27.8	25.7	32.0	8.9	2.6	16.2	64.2	59.0	72.9	26.8	13.9	34.5	1.2	0.6	2.6	0.9	0.3	1.8	5	1	13	100.7	95.8	108.1
11	Region 14	77.2	76.0	79.1	28.1	25.2	32.5	7.4	2.6	16.8	63.1	55.0	69.0	29.5	17.8	42.4	1.4	0.2	2.6	1.1	0.0	2.3	6	1	16	97.9	86.5	109.9
3	Region 15	78.2	77.6	78.7	29.2	23.2	33.6	5.3	3.8	7.6	60.6	49.8	67.8	34.2	28.3	45.8	1.4	0.9	1.9	1.3	0.8	1.8	10	7	13	96.0	94.6	97.6
5	Region 16	76.8	75.3	78.9	28.5	25.7	33.1	10.1	3.9	20.3	64.6	56.7	70.2	25.3	11.8	39.4	1.7	0.7	2.4	1.3	0.5	2.0	5	2	8	93.5	85.0	103.2
9	Region 17	76.5	72.5	79.1	27.6	24.5	32.5	6.8	3.0	14.1	62.7	54.4	70.5	30.5	16.2	42.4	1.6	0.5	3.0	1.2	0.5	2.2	4	1	8	92.2	67.0	106.9
11	Region 18	77.0	75.9	77.6	29.4	25.8	37.4	10.5	5.1	18.8	65.4	57.0	73.9	24.2	15.3	34.3	1.3	0.8	2.0	0.9	0.6	1.4	4	0	7	92.4	86.7	101.8
6	Region 19	76.8	75.0	78.5	29.2	23.9	38.2	7.9	2.6	14.9	62.7	55.8	67.5	29.4	20.3	41.6	1.5	0.9	2.2	1.0	0.6	1.5	4	0	9	96.1	88.7	100.2
5	Region 20	76.8	75.5	78.0	28.9	26.5	34.4	9.6	6.3	11.4	67.3	61.8	73.3	23.1	15.6	31.9	1.8	0.2	4.6	1.2	0.1	2.9	7	2	17	93.5	82.1	101.0
7	Region 21	76.6	75.5	77.4	26.1	21.9	32.3	5.3	0.9	10.0	56.1	42.5	66.7	38.7	24.2	56.5	1.3	0.6	1.9	1.0	0.6	1.6	5	2	9	92.2	82.2	101.7
4	Region 22	76.3	73.1	78.7	29.7	27.2	34.4	6.6	3.6	8.9	67.1	63.4	69.4	26.3	22.2	33.0	0.9	0.2	1.5	0.6	0.1	1.2	5	0	11	92.8	82.2	102.2
8	Region 23	77.4	76.6	78.7	28.6	26.1	33.0	10.0	4.8	19.6	67.6	62.1	74.8	22.5	17.3	29.0	1.4	1.1	2.1	1.2	0.8	1.5	8	0	13	96.6	86.9	101.5
7	Region 24	77.2	72.9	80.2	30.1	26.2	32.8	8.2	1.9	22.9	63.9	56.5	71.9	27.9	12.9	41.6	1.8	0.8	2.9	1.4	0.8	2.3	6	0	16	91.9	64.6	109.0
12	Region 25	76.2	73.8	80.7	28.9	22.8	36.7	9.3	1.8	22.6	65.8	56.2	78.0	24.8	9.2	39.3	1.0	0.4	2.0	0.8	0.2	1.5	8	3	18	86.2	79.1	95.5
9	Region 26	76.2	74.6	77.7	26.8	23.0	29.9	6.3	1.4	14.4	61.2	50.2	68.4	32.6	22.6	48.4	0.9	0.6	1.4	0.6	0.1	1.0	4	2	7	92.9	86.3	102.1
3	Region 27	77.0	75.8	79.3	28.2	24.9	33.5	6.3	4.4	8.8	62.4	54.4	67.7	31.3	26.1	41.2	2.4	1.0	3.3	1.7	0.6	2.2	9	2	16	94.4	85.9	103.5
22	Region 28	75.4	72.7	77.9	30.5	22.9	37.8	15.2	3.8	28.7	65.8	57.8	75.4	19.0	7.4	38.4	0.9	0.2	5.3	0.7	0.2	3.3	6	0	27	84.6	74.8	98.7
38	Region 29	75.7	70.0	78.9	28.6	22.2	34.3	12.6	2.7	32.4	65.0	49.6	74.6	22.4	8.6	38.5	1.2	0.2	4.9	0.8	0.0	3.5	5	0	17	87.9	79.5	97.7
50	Region 30	76.1	71.2	79.2	30.0	21.9	36.6	13.6	2.4	24.3	65.7	50.8	72.7	20.6	7.9	46.8	1.2	0.2	8.5	0.9	0.0	8.2	7	0	18	87.0	61.0	100.8
22	Region 31	76.0	73.5	78.5	29.8	25.9	35.1	15.4	6.1	24.2	66.5	59.3	73.1	18.0	11.1	27.9	1.0	0.4	1.9	0.7	0.3	1.3	4	1	9	86.2	78.2	95.4
31	Region 32	76.7	74.5	78.6	31.9	24.1	35.5	21.1	6.9	38.3	63.9	54.0	73.4	15.0	6.5	27.9	0.9	0.3	2.1	0.7	0.3	1.4	5	0	14	79.9	63.2	93.5
18	Region 33	75.4	72.7	78.1	30.6	23.7	38.1	15.6	5.4	31.8	64.0	56.7	70.3	20.5	8.4	37.5	1.2	0.4	3.0	0.9	0.2	2.9	6	1	13	82.0	68.9	95.7
15	Region 34	76.8	75.7	78.1	30.4	28.0	33.0	15.3	7.7	30.7	66.8	60.1	71.9	17.9	7.5	25.2	0.9	0.4	2.1	0.7	0.3	1.6	6	1	12	89.6	80.2	96.8
9	Region 35	77.2	75.4	79.4	34.0	28.1	37.7	5.6	2.2	9.4	71.0	51.4	79.0	23.4	14.4	46.4	1.6	0.4	4.5	1.4	0.2	4.1	8	0	22	82.6	70.5	95.6
13	Region 36	76.5	69.7	81.0	32.6	24.8	40.9	13.8	4.6	26.6	67.3	39.4	79.4	18.9	7.9	56.0	1.2	0.5	2.5	0.8	0.2	1.6	11	1	27	85.8	53.0	101.0
354	**Ave. YM1**	76.4			30.0			12.0			64.8			23.2			1.2			0.9			6			88.0		
	Min. YM1		69.7			21.9			0.6			38.9			6.5			0.2			0.0			0			53.0	
	Max. YM1			81.0			40.9			38.3			79.4			59.7			8.5			8.2			27			109.9

TABLE 11: PHYSICAL QUALITY FACTORS OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%) Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			Breakage susceptibility (%) < 6.35 mm sieve			< 4.75 mm sieve			Stress cracks (%)			Milling index		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: YM2																												
2	Region 12	75.7	73.9	77.4	26.9	26.2	27.5	4.9	2.9	6.9	59.4	59.1	59.7	35.7	33.4	38.0	3.4	3.2	3.5	2.0	1.8	2.1	6	6	6	91.6	88.4	94.8
3	*Region 13*	*75.4*	*74.2*	*77.3*	*23.4*	*20.8*	*27.3*	*4.1*	*2.2*	*6.4*	*55.9*	*50.9*	*64.4*	*40.0*	*29.2*	*45.5*	*0.9*	*0.8*	*1.1*	*0.7*	*0.5*	*0.9*	*5*	*2*	*6*	*91.9*	*90.0*	*93.7*
1	Region 14	75.4	-	-	26.6	-	-	4.4	-	-	59.3	-	-	36.3	-	-	1.3	-	-	0.9	-	-	10	-	-	94.8	-	-
1	*Region 17*	*76.4*	*-*	*-*	*23.4*	*-*	*-*	*5.2*	*-*	*-*	*56.9*	*-*	*-*	*37.9*	*-*	*-*	*1.1*	*-*	*-*	*0.8*	*-*	*-*	*11*	*-*	*-*	*95.1*	*-*	*-*
3	*Region 19*	*76.6*	*75.4*	*77.7*	*26.6*	*26.0*	*27.4*	*7.0*	*4.9*	*10.3*	*61.5*	*57.3*	*68.5*	*31.4*	*21.2*	*37.8*	*1.5*	*1.0*	*1.8*	*1.1*	*0.8*	*1.3*	*5*	*4*	*6*	*97.1*	*95.3*	*98.8*
4	Region 21	74.9	73.4	75.8	26.1	24.0	29.0	3.6	2.4	5.2	59.0	53.2	64.3	37.5	33.3	43.7	2.2	1.5	2.8	1.5	1.1	1.9	6	4	8	88.1	78.7	93.0
2	Region 22	75.8	74.6	76.9	25.3	24.8	25.7	11.2	10.0	12.4	70.7	69.2	72.2	18.1	17.8	18.4	9.3	2.9	15.6	5.4	2.5	8.3	2	2	2	90.4	89.9	90.8
2	*Region 23*	*73.3*	*70.9*	*75.6*	*25.8*	*20.4*	*31.2*	*7.3*	*0.9*	*13.7*	*56.5*	*47.7*	*65.3*	*36.2*	*21.0*	*51.4*	*2.6*	*1.6*	*3.6*	*2.0*	*1.5*	*2.6*	*16*	*6*	*25*	*83.5*	*73.6*	*93.4*
2	*Region 24*	*75.4*	*75.3*	*75.4*	*30.7*	*30.5*	*30.8*	*4.0*	*2.3*	*5.7*	*69.3*	*68.4*	*70.2*	*26.7*	*24.1*	*29.3*	*2.5*	*0.5*	*4.4*	*2.0*	*0.5*	*3.5*	*13*	*2*	*24*	*83.6*	*80.0*	*87.2*
2	Region 25	74.6	74.2	75.0	26.5	25.1	27.9	7.8	3.6	12.0	66.1	63.1	69.0	26.2	19.0	33.3	1.8	1.7	1.9	1.2	0.9	1.4	9	4	14	87.2	79.1	95.2
5	Region 26	75.6	73.9	77.4	23.4	19.9	25.9	3.4	1.2	9.1	51.0	43.0	58.6	45.6	32.3	55.8	2.1	1.6	2.6	1.2	0.8	1.6	5	1	11	94.2	86.1	100.5
4	Region 28	73.9	70.9	76.9	29.0	26.0	32.5	13.7	9.2	19.3	64.2	54.8	69.5	22.1	16.9	25.9	1.8	0.2	2.8	1.1	0.1	1.8	9	2	17	87.1	82.0	90.3
9	*Region 29*	*73.5*	*68.8*	*75.7*	*24.0*	*17.7*	*29.6*	*6.4*	*0.0*	*21.3*	*47.9*	*13.7*	*62.9*	*45.7*	*21.5*	*86.3*	*1.8*	*0.3*	*4.1*	*0.9*	*0.3*	*2.2*	*5*	*0*	*17*	*85.6*	*75.6*	*95.0*
8	*Region 30*	*74.8*	*69.8*	*76.9*	*26.3*	*19.5*	*33.4*	*8.1*	*0.7*	*18.0*	*59.5*	*23.4*	*71.6*	*32.4*	*13.8*	*75.9*	*1.3*	*0.7*	*2.5*	*0.8*	*0.5*	*1.9*	*5*	*0*	*20*	*85.7*	*68.6*	*97.3*
1	*Region 31*	*74.9*	*-*	*-*	*23.5*	*-*	*-*	*19.9*	*-*	*-*	*65.6*	*-*	*-*	*14.5*	*-*	*-*	*0.5*	*-*	*-*	*0.4*	*-*	*-*	*8*	*-*	*-*	*88.9*	*-*	*-*
4	Region 32	74.7	73.4	76.3	28.2	22.3	32.2	10.3	2.3	20.0	66.3	57.8	71.6	23.4	9.7	32.2	1.3	0.5	2.1	0.9	0.4	1.3	3	1	5	81.9	75.5	87.4
2	Region 33	74.0	73.5	74.5	26.0	23.9	28.0	9.1	5.1	13.1	60.1	53.3	66.9	30.8	20.0	41.6	1.4	1.3	1.5	0.8	0.6	1.0	6	5	6	76.2	71.8	80.5
2	Region 34	75.0	73.9	76.0	26.2	25.1	27.3	7.2	2.2	12.1	64.8	61.5	68.1	28.1	19.8	36.3	1.6	0.7	2.5	1.1	0.7	1.4	10	10	10	82.1	78.1	86.1
57	**Ave. YM2**	74.8			25.9			7.3			58.7			34.0			2.0			1.2			6			87.5		
	Min. YM2		68.8			17.7			0.0			13.7			9.7			0.2			0.1			0			68.6	
	Max. YM2			77.7			33.4			21.3			72.2			86.3			15.6			8.3			25			100.5

TABLE 11: PHYSICAL QUALITY FACTORS OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012)
(continue)

Number of samples	Region	Hectolitre mass (kg/hl)			100 kernel mass (g)			Kernel size (%) Above 10 mm sieve			Above 8 mm sieve			Below 8 mm sieve			Breakage susceptibility (%) <6.35 mm sieve			<4.75 mm sieve			Stress cracks (%)			Milling index		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: YM3																												
1	Region 13	75.9	-	-	25.4	-	-	3.1	-	-	60.4	-	-	36.5	-	-	0.6	-	-	0.6	-	-	6	-	-	89.9	-	-
1	Region 14	75.9	-	-	26.2	-	-	6.7	-	-	64.9	-	-	28.4	-	-	1.3	-	-	0.8	-	-	6	-	-	94.0	-	-
1	Region 18	76.8	-	-	27.4	-	-	5.6	-	-	59.0	-	-	35.4	-	-	1.4	-	-	0.9	-	-	2	-	-	94.3	-	-
1	Region 19	72.9	-	-	30.3	-	-	3.8	-	-	57.5	-	-	38.7	-	-	8.8	-	-	6.8	-	-	9	-	-	72.1	-	-
1	Region 23	68.1	-	-	14.5	-	-	0.4	-	-	39.4	-	-	60.2	-	-	3.6	-	-	1.7	-	-	2	-	-	80.7	-	-
1	Region 30	72.2	-	-	26.6	-	-	11.3	-	-	69.6	-	-	19.1	-	-	1.6	-	-	1.0	-	-	6	-	-	77.7	-	-
6	Ave. YM3	73.6			25.1			5.2			58.5			36.4			2.9			2.0			5			84.8		
	Min. YM3		68.1			14.5			0.4			39.4			19.1			0.6			0.6			2			72.1	
	Max. YM3			76.8			30.3			11.3			69.6			60.2			8.8			6.8			9			94.3
CLASS: COM																												
2	Region 19	73.7	69.9	77.4	27.0	25.6	28.4	7.7	7.2	8.1	58.6	54.0	63.2	33.8	28.7	38.8	5.0	0.6	9.3	2.4	0.4	4.3	10	4	16	84.8	76.6	92.9
1	Region 23	75.1	-	-	25.8	-	-	8.1	-	-	62.0	-	-	29.9	-	-	0.5	-	-	0.3	-	-	9	-	-	89.4	-	-
1	Region 25	75.7	-	-	31.9	-	-	11.6	-	-	68.9	-	-	19.5	-	-	2.7	-	-	1.7	-	-	19	-	-	85.0	-	-
1	Region 28	75.0	-	-	34.4	-	-	17.7	-	-	71.6	-	-	10.7	-	-	2.3	-	-	2.2	-	-	8	-	-	93.0	-	-
1	Region 31	74.8	-	-	27.3	-	-	18.8	-	-	65.0	-	-	16.2	-	-	1.1	-	-	0.8	-	-	4	-	-	92.0	-	-
6	Ave. COM	74.7			28.9			11.9			64.1			24.0			2.8			1.6			10			88.2		
	Min. COM		69.9			25.6			7.2			54.0			10.7			0.5			0.3			4			76.6	
	Max. COM			77.4			34.4			18.8			71.6			38.8			9.3			4.3			19			93.0
423	Ave. yellow maize	76.1			29.4			11.3			63.9			24.8			1.3			1.0			6			87.9		
	Min. yellow maize		68.1			14.5			0.0			13.7			6.5			0.2			0.0			0			53.0	
	Max. yellow maize			81.0			40.9			38.3			79.4			86.3			15.6			8.3			27			109.9
1000	Ave. maize	77.3			30.4			15.6			64.5			19.9			1.0			0.7			6			91.0		
	Min. maize		68.1			14.5			0.0			13.7			2.8			0.0			0.0			0			53.0	
	Max. maize			82.0			44.4			63.3			79.7			86.3			15.6			8.3			27			117.0

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2011/2012)

Number of samples	Region	Break 1, % ave.	min.	max.	Break 2, % ave.	min.	max.	Break 3, % ave.	min.	max.	Grits, % ave.	min.	max.	Bran/Germ, % ave.	min.	max.	Extraction, % (Total meal) ave.	min.	max.	Whiteness index unsifted ave.	min.	max.	Whiteness index sifted 87:13 ave.	min.	max.
	GRADE: WM1																								
1	Region 11	12.2	-	-	12.3	-	-	28.5	-	-	28.3	-	-	18.7	-	-	81.3	-	-	25.3	-	-	17.7	-	-
11	Region 12	12.0	10.7	13.6	11.9	11.5	12.2	26.8	25.4	28.2	29.6	27.9	31.9	19.8	17.6	22.2	80.2	77.8	82.4	27.3	22.8	34.0	20.3	15.9	25.2
31	Region 13	11.6	10.4	13.4	12.4	11.3	14.3	26.8	25.9	27.9	29.3	25.6	31.9	19.9	18.3	21.2	80.1	78.8	81.7	27.7	22.2	31.8	24.7	15.5	35.7
43	Region 14	12.3	9.5	14.0	12.5	11.2	13.9	26.3	24.1	28.1	28.1	24.7	32.7	20.8	17.8	25.1	79.2	74.9	82.2	27.7	22.8	34.4	24.3	16.2	39.3
11	Region 15	13.8	11.6	16.6	13.0	11.8	14.2	26.7	25.3	28.8	26.7	24.5	30.2	19.9	18.6	20.8	80.1	79.2	81.4	28.4	25.7	32.3	23.4	15.7	39.0
24	Region 16	12.2	10.7	13.2	13.0	11.7	13.7	27.1	25.4	28.4	28.1	26.2	30.6	19.6	18.3	22.5	80.4	77.5	81.7	28.1	22.7	33.8	25.0	15.5	33.7
24	Region 17	12.2	10.9	14.3	12.0	11.3	13.2	26.5	24.5	28.3	28.7	26.1	30.9	20.6	18.8	23.5	79.4	76.5	81.2	28.4	23.0	32.9	21.3	14.5	31.5
28	Region 18	12.5	10.8	14.2	12.5	11.2	13.6	26.0	24.6	28.6	27.9	25.0	31.0	21.1	18.0	23.8	78.9	76.2	82.0	28.1	24.7	34.3	24.4	15.7	35.4
17	Region 19	12.0	10.5	15.0	12.1	10.8	13.8	26.1	24.1	27.8	29.1	26.0	31.8	20.6	18.4	23.0	79.4	77.0	81.6	27.1	24.1	32.0	19.5	12.7	31.3
9	Region 20	12.9	11.9	14.0	12.5	11.7	13.2	25.9	24.4	27.4	27.9	25.4	29.7	20.8	18.7	23.5	79.2	76.5	81.3	26.7	23.4	30.8	21.7	13.9	33.2
27	Region 21	12.9	11.2	14.5	12.5	11.5	13.5	26.6	25.0	28.6	27.6	25.8	29.1	20.4	16.4	23.2	79.6	76.8	83.6	30.0	18.6	35.6	27.2	15.8	37.2
35	Region 22	13.0	11.8	14.3	12.7	11.9	13.4	26.8	26.0	28.2	27.7	26.2	29.4	20.0	18.6	21.3	80.0	78.7	81.4	29.9	24.7	36.0	27.8	17.2	39.9
43	Region 23	13.1	11.5	14.6	12.7	11.6	13.7	26.6	24.9	28.5	27.8	25.6	29.7	19.8	17.4	21.0	80.2	79.0	82.6	29.5	26.8	36.3	27.1	16.1	37.5
21	Region 24	13.1	12.1	17.6	12.9	12.0	14.5	26.5	25.2	27.3	27.4	23.7	29.3	20.0	17.8	21.5	80.0	78.5	82.2	29.7	26.6	34.1	25.6	15.5	39.0
6	Region 25	13.2	11.7	14.4	12.8	12.2	13.3	26.9	25.0	27.9	26.3	25.4	27.6	20.8	18.9	22.5	79.2	77.5	81.1	29.2	26.8	31.0	22.9	17.3	38.6
4	Region 26	11.6	10.8	12.9	11.9	11.6	12.5	26.1	25.0	27.1	29.0	26.4	31.6	21.4	19.1	23.9	78.6	76.1	80.9	26.3	22.0	29.1	18.8	16.9	21.0
2	Region 27	14.0	13.8	14.2	12.7	12.6	12.9	25.9	25.6	26.3	25.9	25.3	26.4	21.5	21.0	22.0	78.5	78.0	79.0	29.9	28.1	31.7	20.4	17.6	23.3
15	Region 28	13.2	11.0	17.8	12.7	11.8	14.0	26.7	25.5	28.9	26.6	22.4	29.9	20.7	17.8	23.3	79.3	76.7	82.2	28.8	22.2	34.2	19.6	14.1	24.6
15	Region 29	13.7	11.8	15.3	12.5	11.8	13.0	26.4	25.0	27.9	26.4	24.7	28.1	21.0	19.5	22.3	79.0	77.7	80.5	30.4	26.4	33.7	20.6	14.7	25.3
27	Region 30	13.2	11.2	15.2	12.3	11.1	14.3	25.6	23.5	27.2	27.1	23.7	28.9	21.8	19.1	24.0	78.2	76.0	80.9	29.4	22.7	34.9	22.1	14.3	34.1
8	Region 31	13.0	11.9	14.4	12.2	11.4	13.3	25.8	24.9	26.8	27.2	25.5	29.2	21.7	18.8	23.0	78.3	77.0	81.2	28.6	23.8	33.6	17.6	14.5	20.5
27	Region 32	13.7	11.5	14.9	12.4	11.6	13.7	25.5	23.9	27.3	26.2	23.5	29.1	22.2	19.9	24.6	77.8	75.4	80.1	28.3	24.9	30.5	23.2	17.4	35.7
22	Region 33	14.6	12.7	16.9	12.6	11.6	13.3	25.7	24.1	29.5	25.8	22.4	30.1	21.3	16.2	23.3	78.7	76.7	83.8	30.9	22.0	38.8	24.2	11.1	38.7
32	Region 34	14.2	11.3	16.1	12.8	11.8	14.0	25.7	23.8	27.8	25.9	23.4	29.9	21.4	18.7	24.1	78.6	75.9	81.3	29.3	21.9	33.0	25.1	12.8	36.9
4	Region 35	12.4	9.0	14.0	12.5	11.1	13.1	26.8	25.7	27.6	27.2	25.2	31.1	21.1	19.7	22.2	78.9	77.8	80.3	27.1	21.6	31.6	18.9	15.1	23.8
11	Region 36	12.2	10.6	13.6	12.2	11.5	13.0	25.7	24.9	26.6	28.5	26.3	29.8	21.5	19.6	22.5	78.5	77.5	80.4	29.6	26.3	33.3	19.1	15.6	22.1
498	Ave. WM1	12.9			12.5			26.3			27.6			20.7			79.3			28.8			23.9		
	Min. WM1		9.0			10.8			23.5			22.4			16.2			74.9			18.6			11.1	
	Max. WM1			17.8			14.5			29.5			32.7			25.1			83.8			38.8			39.9

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2011/2012)
(continue)

| Number of samples | Region | Roff Milling | | | | | | | | | | | | | | | | | | Whiteness index | | | | | |
| | | Break 1, % | | | Break 2, % | | | Break 3, % | | | Grits, % | | | Bran/Germ, % | | | Extraction, % (Total meal) | | | Whiteness index unsifted | | | Whiteness index sifted 87:13 | | |
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM2																									
2	Region 12	12.7	12.0	13.4	12.6	12.6	12.7	27.7	27.7	27.8	28.1	27.0	29.2	18.8	18.4	19.3	81.2	80.7	81.6	31.6	27.7	35.4	20.7	17.6	23.8
9	Region 13	11.7	10.7	12.3	12.3	11.3	13.2	26.2	24.2	27.4	28.7	26.6	31.5	21.1	20.0	24.8	78.9	75.2	80.0	26.8	19.4	32.2	23.2	10.4	33.5
4	Region 14	12.4	12.0	13.0	12.4	11.7	13.6	25.8	23.6	27.0	28.5	26.6	30.5	21.0	19.7	24.5	79.0	75.5	80.3	28.3	25.0	32.4	27.7	22.3	31.9
1	Region 15	13.5	-	-	12.7	-	-	26.8	-	-	26.8	-	-	20.1	-	-	79.9	-	-	29.7	-	-	21.7	-	-
6	**Region 16**	**12.5**	**11.8**	**13.1**	**13.2**	**12.9**	**13.6**	**27.0**	**26.3**	**27.3**	**27.3**	**26.8**	**27.9**	**19.9**	**19.0**	**21.3**	**80.1**	**78.7**	**81.0**	**27.6**	**24.4**	**30.3**	**26.6**	**19.0**	**38.1**
3	Region 17	10.9	10.6	11.6	11.8	11.4	12.2	25.6	24.7	26.3	29.8	29.7	29.9	21.8	20.9	23.6	78.2	76.4	79.1	27.5	25.7	30.8	21.8	17.3	29.0
5	Region 18	13.5	12.0	15.6	13.1	12.3	13.9	25.1	22.6	27.0	25.3	22.7	28.7	22.9	19.6	28.1	77.1	71.9	80.4	27.1	24.2	28.2	26.2	18.1	30.8
7	Region 19	12.6	8.7	15.0	12.4	11.3	13.4	25.4	24.3	27.5	27.5	24.2	32.1	22.1	20.3	23.8	77.9	76.2	79.7	27.9	24.0	32.8	21.0	17.6	27.1
3	Region 21	10.6	8.9	12.1	11.4	10.8	12.4	26.1	25.2	27.3	31.4	29.8	33.5	20.5	18.5	22.1	79.5	77.9	81.5	20.8	5.8	30.9	11.5	-2.2	20.9
4	Region 22	12.5	11.5	13.1	12.4	12.1	12.8	26.5	26.2	26.9	28.0	27.1	28.5	20.6	20.0	21.0	79.4	79.0	80.0	29.1	26.5	31.1	27.1	18.8	35.3
4	Region 23	13.0	12.1	14.0	12.6	12.3	12.9	26.8	26.2	27.3	27.2	25.6	28.5	20.4	19.6	21.9	79.6	78.1	80.4	28.4	22.8	32.4	24.3	14.5	31.8
1	**Region 24**	**12.7**	**-**	**-**	**12.3**	**-**	**-**	**25.2**	**-**	**-**	**27.4**	**-**	**-**	**22.3**	**-**	**-**	**77.7**	**-**	**-**	**32.0**	**-**	**-**	**20.0**	**-**	**-**
3	Region 26	11.8	10.9	13.1	11.6	11.1	12.2	25.7	24.3	27.0	28.5	27.5	29.0	22.4	20.3	24.7	77.6	75.3	79.7	30.7	26.5	35.0	21.8	17.6	24.8
2	Region 28	13.8	13.4	14.2	12.1	11.2	12.9	23.8	23.0	24.7	25.4	24.0	26.7	24.9	24.8	25.0	75.1	75.0	75.2	29.8	27.9	31.8	21.2	18.0	24.3
4	Region 29	13.3	11.8	14.3	12.3	11.2	12.8	26.3	25.6	27.9	26.4	25.6	27.1	21.7	19.9	24.0	78.3	76.0	80.1	26.2	9.6	32.7	14.5	-1.8	21.4
4	Region 30	12.4	11.7	14.0	12.1	10.9	13.3	24.9	24.3	25.7	27.5	25.4	29.1	23.2	22.7	23.6	76.8	76.4	77.3	24.0	18.9	29.6	18.6	10.4	29.4
1	Region 33	13.0	-	-	12.1	-	-	24.6	-	-	28.3	-	-	22.0	-	-	78.0	-	-	26.1	-	-	22.0	-	-
2	Region 36	12.7	10.9	14.5	12.4	11.4	13.3	25.5	25.4	25.6	26.9	24.3	29.5	22.6	22.5	22.6	77.4	77.4	77.5	27.5	25.8	29.2	18.9	17.3	20.5
65	**Ave. WM2**	**12.4**			**12.4**			**25.9**			**27.8**			**21.5**			**78.5**			**27.4**			**22.2**		
	Min. WM2		**8.7**			**10.8**			**22.6**			**22.7**			**18.4**			**71.9**			**5.8**			**-2.2**	
	Max. WM2			**15.6**			**13.9**			**27.9**			**33.5**			**28.1**			**81.6**			**35.4**			**38.1**

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Roff Milling																						Whiteness index					
		Break 1, %			Break 2, %			Break 3, %			Grits, %			Bran/Germ, %			Extraction, % (Total meal)			Whiteness index unsifted			Whiteness index sifted 87:13		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: WM3																									
1	Region 19	12.5	-	-	11.6	-	-	25.9	-	-	27.1	-	-	22.9	-	-	77.1	-	-	25.3	-	-	17.8	-	-
1	Region 21	13.4	-	-	13.1	-	-	26.0	-	-	26.7	-	-	20.8	-	-	79.2	-	-	32.0	-	-	33.7	-	-
1	Region 22	13.6	-	-	12.7	-	-	26.9	-	-	26.9	-	-	19.9	-	-	80.1	-	-	34.5	-	-	40.1	-	-
4	Region 23	12.7	11.7	13.3	12.7	12.6	12.9	26.5	26.0	27.2	27.2	26.2	28.2	20.8	20.3	21.2	79.2	78.8	79.7	28.8	23.8	34.6	26.7	20.1	33.0
1	Region 30	11.3	-	-	12.0	-	-	25.0	-	-	29.9	-	-	21.8	-	-	78.2	-	-	27.8	-	-	24.0	-	-
8	Ave. WM3	12.7			12.6			26.2			27.4			21.1			78.9			29.4			27.8		
	Min. WM3		11.3			11.6			25.0			26.2			19.9			77.1			23.8			17.8	
	Max. WM3			13.6			13.1			27.2			29.9			22.9			80.1			34.6			40.1
CLASS: COM																									
1	Region 13	12.0	-	-	12.8	-	-	26.7	-	-	28.9	-	-	19.6	-	-	80.4	-	-	26.3	-	-	29.1	-	-
1	Region 15	13.7	-	-	12.8	-	-	25.2	-	-	27.7	-	-	20.6	-	-	79.4	-	-	30.8	-	-	27.8	-	-
1	Region 19	9.6	-	-	11.8	-	-	25.0	-	-	30.6	-	-	23.0	-	-	77.0	-	-	-47.6	-	-	-71.6	-	-
2	Region 20	13.3	12.9	13.7	12.9	12.6	13.1	25.2	24.2	26.2	25.8	24.2	27.4	22.7	20.8	24.7	77.3	75.3	79.2	26.6	21.9	31.4	16.9	12.2	21.7
1	Region 33	15.9	-	-	12.9	-	-	24.8	-	-	24.3	-	-	22.1	-	-	77.9	-	-	31.7	-	-	35.8	-	-
6	Ave. COM	13.0			12.7			25.4			27.2			21.8			78.2			15.7			9.2		
	Min. COM		9.6			11.8			24.2			24.2			19.6			75.3			-47.6			-71.6	
	Max. COM			15.9			13.1			26.7			30.6			24.7			80.4			31.7			35.8
577	Ave. white maize	12.8			12.5			26.3			27.6			20.8			79.2			28.5			23.6		
	Min. white maize		8.7			10.8			22.6			22.4			16.2			71.9			-47.6			-71.6	
	Max. white maize			17.8			14.5			29.5			33.5			28.1			83.8			38.8			40.1

TABLE 18: NUTRITIONAL VALUES OF WHITE MAIZE ACCORDING TO GRADE (2011/2012)

Number of samples	Region	Fat % (db) ave.	min.	max.	Protein % (db) ave.	min.	max.	Starch % (db) ave.	min.	max.
GRADE: WM1										
-	Region 10	-	-	-	-	-	-	-	-	-
1	Region 11	4.3	-	-	8.6	-	-	72.4	-	-
11	Region 12	4.3	4.1	4.7	8.9	8.5	9.6	72.2	71.4	73.0
31	Region 13	4.2	3.9	4.3	9.1	8.4	10.5	72.4	71.3	73.3
43	Region 14	4.2	3.8	4.7	8.9	8.2	10.9	72.2	71.2	73.1
11	Region 15	4.1	3.8	4.4	8.2	6.7	8.9	72.9	72.2	73.6
24	Region 16	4.2	4.0	4.4	8.6	8.0	9.2	72.5	72.0	73.1
24	Region 17	4.2	3.9	4.5	9.0	8.1	9.5	72.5	71.7	73.1
28	Region 18	4.2	3.8	4.5	8.7	8.0	9.8	72.6	71.4	73.6
17	Region 19	4.3	4.0	4.6	8.8	8.2	9.6	72.1	71.3	72.9
9	Region 20	4.2	3.9	4.4	8.4	8.0	8.9	72.6	71.5	73.4
27	Region 21	4.1	4.0	4.3	8.7	7.9	9.2	72.7	72.2	73.3
35	Region 22	4.1	3.8	4.4	8.4	7.7	9.2	72.7	71.6	73.8
43	Region 23	4.1	3.9	4.4	8.5	7.7	9.7	72.7	71.6	73.6
21	Region 24	4.2	3.9	4.5	8.5	6.3	9.0	72.6	71.9	73.3
6	Region 25	4.0	3.4	4.2	8.2	7.3	9.3	73.0	72.1	73.8
4	Region 26	4.3	4.1	4.4	9.0	8.4	9.3	72.4	71.6	73.0
2	Region 27	4.1	3.9	4.2	8.3	8.0	8.5	73.3	73.0	73.6
15	Region 28	4.1	3.9	4.4	8.5	6.6	10.0	72.7	71.4	73.7
15	Region 29	3.9	3.6	4.1	8.7	8.0	10.2	72.9	71.9	73.5
27	Region 30	3.9	3.5	4.4	8.7	7.5	10.1	72.9	71.7	73.6
8	Region 31	3.9	3.5	4.2	8.7	8.0	9.5	72.8	72.3	73.3
27	Region 32	3.9	3.5	4.3	8.2	7.4	9.5	73.2	72.4	73.9
22	Region 33	3.8	3.7	4.2	8.3	7.5	8.8	73.3	71.8	74.1
32	Region 34	4.0	3.4	4.4	8.1	7.1	9.2	72.9	71.7	74.3
4	Region 35	4.2	4.0	4.6	9.0	7.9	11.2	71.8	70.6	73.0
11	Region 36	4.1	3.8	4.5	8.7	7.7	9.6	72.3	71.6	72.9
498	Ave. WM1	4.1			8.6			72.7		
	Min. WM1		3.4			6.3			70.6	
	Max. WM1			4.7			11.2			74.3

TABLE 18: NUTRITIONAL VALUES OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012)

Number of samples	Region	Fat % (db) ave.	min.	max.	Protein % (db) ave.	min.	max.	Starch % (db) ave.	min.	max.
GRADE: YM1										
4	Region 10	3.3	3.0	3.5	7.5	7.2	8.1	73.8	72.9	74.2
19	Region 11	3.4	3.2	3.6	7.8	7.5	8.2	73.8	73.0	74.7
5	Region 12	3.8	3.5	4.2	9.3	8.1	10.2	72.1	71.2	72.9
8	Region 13	3.9	3.8	4.1	9.8	9.3	10.2	72.3	71.5	73.3
11	Region 14	3.8	3.5	4.0	9.1	8.5	9.6	72.6	72.0	73.3
3	Region 15	3.6	3.6	3.7	8.6	8.2	8.8	73.7	73.4	74.0
5	Region 16	3.7	3.5	4.0	8.7	7.4	9.2	73.2	72.2	74.0
9	Region 17	3.8	3.4	4.5	9.2	8.3	10.2	72.6	71.8	73.1
11	Region 18	3.8	3.6	4.1	8.9	8.3	9.5	73.1	72.4	74.0
6	Region 19	3.8	3.5	4.0	9.1	8.3	9.8	72.7	72.1	73.6
5	Region 20	4.1	3.8	4.6	8.7	8.1	9.3	72.4	71.5	73.2
7	Region 21	3.8	3.6	4.0	9.3	8.2	10.7	73.1	72.1	74.3
4	Region 22	3.7	3.5	3.9	8.6	8.1	8.9	73.0	72.5	73.4
8	Region 23	3.8	3.6	4.0	8.8	7.6	9.6	73.1	72.9	73.6
7	Region 24	4.1	3.5	4.6	8.6	7.7	9.4	72.6	72.0	73.0
12	Region 25	3.7	3.2	4.5	8.8	7.7	10.1	73.1	71.1	74.9
9	Region 26	3.8	3.5	4.2	9.6	9.1	10.0	73.1	72.4	74.1
3	Region 27	3.4	3.2	3.7	9.5	9.2	9.6	73.3	73.0	73.6
22	Region 28	4.0	3.2	4.6	9.0	7.8	10.6	72.7	71.0	74.5
38	Region 29	3.8	3.4	4.2	9.0	7.0	10.8	72.9	71.5	74.5
50	Region 30	3.8	3.4	4.4	8.9	7.6	10.3	73.0	71.7	74.4
22	Region 31	3.8	3.5	4.1	8.9	7.7	9.8	73.1	72.2	73.8
31	Region 32	3.8	3.3	4.4	8.5	7.9	9.3	73.1	71.9	74.2
18	Region 33	3.8	3.3	4.2	8.9	7.5	10.2	72.9	71.9	74.2
15	Region 34	3.9	3.7	4.1	8.3	7.3	9.2	73.2	72.4	74.3
9	Region 35	3.5	3.3	3.8	8.0	7.3	8.6	73.1	72.0	73.9
13	Region 36	3.9	3.3	4.5	8.5	7.0	10.2	72.7	71.7	73.6
354	Ave. YM1	3.8			8.8			73.0		
	Min. YM1		3.0			7.0			71.0	
	Max. YM1			4.6			10.8			74.9

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TABLE 18: NUTRITIONAL VALUES OF WHITE MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Fat % (db) ave.	Fat % (db) min.	Fat % (db) max.	Protein % (db) ave.	Protein % (db) min.	Protein % (db) max.	Starch % (db) ave.	Starch % (db) min.	Starch % (db) max.
	GRADE: WM2									
2	Region 12	3.8	3.6	4.0	8.9	8.8	8.9	72.9	72.0	73.7
9	Region 13	4.3	4.2	4.5	9.3	8.7	9.8	72.0	71.1	72.8
4	Region 14	4.1	3.7	4.4	8.8	8.4	9.2	72.2	71.6	72.5
1	Region 15	4.2	-	-	8.4	-	-	72.5	-	-
6	*Region 16*	*4.3*	*4.1*	*4.4*	*8.6*	*8.3*	*9.0*	*72.5*	*71.6*	*73.2*
3	Region 17	4.4	4.2	4.5	9.7	9.3	10.2	72.0	71.1	72.5
5	Region 18	4.3	4.0	4.6	8.2	7.5	9.4	72.3	71.6	73.2
7	Region 19	4.2	4.0	4.3	8.7	7.3	10.0	72.4	71.9	73.4
-	Region 20	-	-	-	-	-	-	-	-	-
3	Region 21	4.2	4.1	4.3	9.8	9.3	10.2	72.2	71.7	72.6
4	Region 22	4.1	3.9	4.2	8.7	8.3	9.4	72.7	72.1	73.1
4	Region 23	4.2	4.0	4.3	8.7	8.4	8.8	72.2	71.9	72.5
1	*Region 24*	*4.2*	-	-	*8.6*	-	-	*73.0*	-	-
-	Region 25	-	-	-	-	-	-	-	-	-
3	Region 26	4.1	3.6	4.4	8.8	8.7	8.9	72.9	72.0	74.0
-	Region 27	-	-	-	-	-	-	-	-	-
2	Region 28	4.0	3.9	4.0	8.5	8.4	8.5	72.8	72.0	73.5
4	Region 29	3.8	3.6	3.9	9.2	8.0	10.7	73.1	72.8	73.2
4	Region 30	3.7	3.3	4.2	8.9	8.2	9.4	72.7	71.7	73.2
1	*Region 31*	*4.1*	-	-	*8.3*	-	-	*72.6*	-	-
-	Region 32	-	-	-	-	-	-	-	-	-
-	Region 33	-	-	-	-	-	-	-	-	-
-	Region 34	-	-	-	-	-	-	-	-	-
-	Region 35	-	-	-	-	-	-	-	-	-
2	Region 36	4.1	3.9	4.2	8.7	7.9	9.5	72.6	71.9	73.3
65	**Ave. WM2**	**4.1**			**8.9**			**72.4**		
	Min. WM2		**3.3**			**7.3**			**71.1**	
	Max. WM2			**4.6**			**10.7**			**74.0**

TABLE 18: NUTRITIONAL VALUES OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Fat % (db) ave.	Fat % (db) min.	Fat % (db) max.	Protein % (db) ave.	Protein % (db) min.	Protein % (db) max.	Starch % (db) ave.	Starch % (db) min.	Starch % (db) max.
	GRADE: YM2									
2	Region 12	3.5	3.4	3.6	9.6	9.2	9.9	72.8	72.5	73.0
3	Region 13	3.7	3.6	3.8	9.7	9.2	10.2	72.9	72.1	73.5
1	Region 14	3.7	-	-	9.6	-	-	72.9	-	-
-	Region 15	-	-	-	-	-	-	-	-	-
-	Region 16	-	-	-	-	-	-	-	-	-
1	*Region 17*	*4.1*	-	-	*10.2*	-	-	*72.2*	-	-
-	Region 18	-	-	-	-	-	-	-	-	-
3	*Region 19*	*3.7*	*3.7*	*3.7*	*9.3*	*8.8*	*10.1*	*73.3*	*72.9*	*73.7*
-	Region 20	-	-	-	-	-	-	-	-	-
4	Region 21	3.8	3.7	3.9	9.2	8.3	10.6	73.1	72.7	73.4
2	Region 22	3.8	3.7	3.9	8.5	8.2	8.7	73.4	73.2	73.5
2	Region 23	3.6	3.4	3.8	8.6	7.8	9.3	74.0	73.0	75.0
2	Region 24	3.8	3.6	3.9	8.4	8.3	8.5	73.0	72.9	73.0
2	Region 25	3.6	3.5	3.6	8.9	8.3	9.5	73.5	72.9	74.0
5	Region 26	3.8	3.6	4.1	9.8	8.7	11.1	73.0	71.6	74.4
-	Region 27	-	-	-	-	-	-	-	-	-
4	Region 28	3.7	3.5	3.8	9.1	8.6	9.5	73.0	72.2	73.6
9	Region 29	3.6	3.2	4.0	10.1	9.4	11.2	72.9	71.8	73.7
8	Region 30	3.6	3.1	4.4	9.7	7.9	10.9	73.4	72.3	75.0
1	*Region 31*	*3.8*	-	-	*9.5*	-	-	*72.7*	-	-
4	Region 32	3.9	3.3	4.5	8.5	7.9	9.4	73.4	72.5	73.9
2	Region 33	3.7	3.5	3.8	8.5	7.6	9.4	73.7	73.2	74.2
2	Region 34	3.8	3.7	3.8	7.6	7.0	8.2	74.0	73.5	74.4
-	Region 35	-	-	-	-	-	-	-	-	-
-	Region 36	-	-	-	-	-	-	-	-	-
57	**Ave. YM2**	**3.7**			**9.3**			**73.2**		
	Min. YM2		**3.1**			**7.0**			**71.6**	
	Max. YM2			**4.5**			**11.2**			**75.0**

TABLE 18: NUTRITIONAL VALUES OF WHITE MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Fat % (db) ave.	min.	max.	Protein % (db) ave.	min.	max.	Starch % (db) ave.	min.	max.
GRADE: WM3										
-	Region 13	-	-	-	-	-	-	-	-	-
-	Region 14	-	-	-	-	-	-	-	-	-
-	Region 18	-	-	-	-	-	-	-	-	-
1	Region 19	4.1	-	-	9.8	-	-	72.0	-	-
1	Region 21	4.2	-	-	8.7	-	-	72.1	-	-
1	Region 22	3.8	-	-	8.6	-	-	73.9	-	-
4	Region 23	4.2	4.2	4.3	8.6	8.3	9.1	72.2	71.3	73.1
1	Region 30	4.6	-	-	8.7	-	-	71.3	-	-
8	Ave. WM3	4.2			8.8			72.3		
	Min. WM3		3.8			8.3			71.3	
	Max. WM3			4.6			9.8			73.9
CLASS: COM										
1	Region 13	4.4	-	-	9.0	-	-	71.8	-	-
1	Region 15	3.9	-	-	7.9	-	-	73.1	-	-
1	Region 19	4.3	-	-	9.8	-	-	71.5	-	-
2	Region 20	4.1	3.8	4.3	8.7	8.3	9.1	72.7	72.5	72.9
-	Region 23	-	-	-	-	-	-	-	-	-
-	Region 25	-	-	-	-	-	-	-	-	-
-	Region 28	-	-	-	-	-	-	-	-	-
-	Region 31	-	-	-	-	-	-	-	-	-
1	Region 33	3.8	-	-	8.4	-	-	73.4	-	-
6	Ave. COM	4.1			8.8			72.5		
	Min. COM		3.8			7.9			71.5	
	Max. COM			4.4			9.8			73.4
577	Ave. White	4.1			8.6			72.6		
	Min. White		3.3			6.3			70.6	
	Max. White			4.7			11.2			74.3
1000	Ave. Maize	4.0			8.7			72.8		
	Min. Maize		3.0			6.3			70.6	
	Max. Maize			4.7			11.3			75.0

TABLE 18: NUTRITIONAL VALUES OF YELLOW MAIZE ACCORDING TO GRADE (2011/2012) (continue)

Number of samples	Region	Fat % (db) ave.	min.	max.	Protein % (db) ave.	min.	max.	Starch % (db) ave.	min.	max.
GRADE: YM3										
1	Region 13	3.9	-	-	9.9	-	-	72.8	-	-
1	Region 14	3.6	-	-	9.9	-	-	72.7	-	-
1	Region 18	3.9	-	-	9.1	-	-	72.7	-	-
1	Region 19	3.6	-	-	7.5	-	-	72.7	-	-
-	Region 21	-	-	-	-	-	-	-	-	-
-	Region 22	-	-	-	-	-	-	-	-	-
1	Region 23	3.6	-	-	9.9	-	-	73.9	-	-
1	Region 30	4.0	-	-	10.4	-	-	72.4	-	-
6	Ave. YM3	3.8			9.5			72.9		
	Min. YM3		3.6			7.5			72.4	
	Max. YM3			4.0			10.4			73.9
CLASS: COM										
-	Region 13	-	-	-	-	-	-	-	-	-
-	Region 15	-	-	-	-	-	-	-	-	-
2	Region 19	4.0	3.9	4.0	10.0	8.7	11.3	72.5	72.1	72.8
-	Region 20	-	-	-	-	-	-	-	-	-
1	Region 23	3.6	-	-	9.7	-	-	72.6	-	-
1	Region 25	3.8	-	-	8.4	-	-	73.1	-	-
1	Region 28	4.2	-	-	9.0	-	-	72.4	-	-
1	Region 31	3.8	-	-	10.0	-	-	72.7	-	-
-	Region 33	-	-	-	-	-	-	-	-	-
6	Ave. COM	3.9			9.5			72.6		
	Min. COM		3.6			8.4			72.1	
	Max. COM			4.2			11.3			73.1
423	Ave. Yellow	3.8			8.9			73.0		
	Min. Yellow		3.0			7.0			71.0	
	Max. Yellow			4.6			11.3			75.0
1000	Ave. Maize	4.0			8.7			72.8		
	Min .Maize		3.0			6.3			70.6	
	Max. Maize			4.7			11.3			75.0

Table 21: Presence of Genetically Modified Maize (2011/2012)

Regions 10–19

REGION	RSA Grade	Cry1Ab % (LOQ: 0.4%)	Cry2Ab % (LOQ: 0.5%)	CP4 EPSPS % (LOQ: 0.25%)
10	YM1	>5.0	4.5	>5.0
11	YM1	>5.0	>5.0	>5.0
11	YM1	>5.0	>5.0	>5.0
12	YM1	>5.0	<0.5	1.2
12	WM1	>5.0	1.2	>5.0
13	WM1	>5.0	<0.5	>5.0
13	WM2	>5.0	2.8	>5.0
13	YM2	>5.0	>5.0	>5.0
13	YM1	>5.0	>5.0	>5.0
13	WM1	>5.0	<0.5	>5.0
14	YM1	>5.0	<0.5	<0.25
14	WM1	>5.0	1.4	>5.0
14	WM2	>5.0	<0.5	>5.0
14	YM1	>5.0	>5.0	>5.0
14	WM1	>5.0	<0.5	>5.0
14	WM2	>5.0	<0.5	>5.0
14	WM1	>5.0	>5.0	>5.0
14	YM2	>5.0	<0.5	>5.0
14	WM1	>5.0	>5.0	>5.0
15	WM1	>5.0	<0.5	0.78
15	WM1	>5.0	<0.5	>5.0
16	YM1	>5.0	<0.5	>5.0
16	WM1	>5.0	<0.5	>5.0
16	WM2	>5.0	<0.5	>5.0
17	WM2	>5.0	<0.5	>5.0
17	WM1	>5.0	>5.0	>5.0
17	WM1	>5.0	<0.5	>5.0
17	WM1	>5.0	<0.5	>5.0
18	WM1	>5.0	<0.5	>5.0
18	YM1	>5.0	>5.0	>5.0
18	WM2	>5.0	<0.5	>5.0
18	WM2	2.2	<0.5	1.2
19	COM	>5.0	0.55	>5.0
19	WM1	>5.0	<0.5	>5.0

n	Season	% Samples positive for Cry1Ab
100	2011/12	97
77	2010/11	97

n	Season	% Samples positive for MON810 (*Bt*) (ELISA)
90	2009/10	96
90	2008/09	91
100	2007/08	95

Regions 19–29

REGION	RSA Grade	Cry1Ab % (LOQ: 0.4%)	Cry2Ab % (LOQ: 0.5%)	CP4 EPSPS % (LOQ: 0.25%)
19	WM1	>5.0	<0.5	>5.0
19	COM	>5.0	>5.0	>5.0
20	WM1	>5.0	<0.5	>5.0
21	YM1	>5.0	>5.0	1.2
21	WM1	>5.0	>5.0	>5.0
21	WM2	>5.0	<0.5	>5.0
21	WM1	>5.0	<0.5	>5.0
22	WM1	>5.0	<0.5	>5.0
22	WM1	>5.0	<0.5	>5.0
22	WM2	>5.0	>5.0	<0.25
23	COM	>5.0	<0.5	>5.0
23	WM2	>5.0	0.65	>5.0
23	WM1	>5.0	<0.5	>5.0
23	YM2	>5.0	>5.0	>5.0
23	WM1	>5.0	<0.5	0.29
23	WM1	>5.0	<0.5	0.63
24	WM1	>5.0	<0.5	<0.25
24	WM1	>5.0	>5.0	>5.0
24	WM1	>5.0	<0.5	>5.0
24	YM2	>5.0	<0.5	>5.0
25	YM1	>5.0	<0.5	0.78
25	YM2	>5.0	<0.5	>5.0
25	YM1	>5.0	<0.5	>5.0
26	YM2	>5.0	>5.0	>5.0
26	WM2	>5.0	0.8	0.73
27	YM1	>5.0	>5.0	>5.0
28	WM1	>5.0	<0.5	>5.0
28	YM1	>5.0	<0.5	>5.0
28	WM1	>5.0	<0.5	>5.0
28	WM1	>5.0	<0.5	>5.0
29	WM1	>5.0	<0.5	>5.0
29	WM1	>5.0	<0.5	>5.0
29	WM1	>5.0	<0.5	>5.0

n	Season	% Samples positive for Cry2Ab
100	2011/12	27
-	-	-

Regions 29–36

REGION	RSA Grade	Cry1Ab % (LOQ: 0.4%)	Cry2Ab % (LOQ: 0.5%)	CP4 EPSPS % (LOQ: 0.25%)
29	YM1	>5.0	<0.5	>5.0
29	YM1	>5.0	<0.5	>5.0
29	YM2	>5.0	<0.5	>5.0
29	YM1	>5.0	<0.5	>5.0
30	YM1	>5.0	<0.5	2.1
30	YM1	<0.4	<0.5	2.2
30	YM1	1.1	<0.5	0.75
30	YM1	>5.0	<0.5	>5.0
30	YM1	>5.0	<0.5	>5.0
30	WM1	>5.0	<0.5	<0.25
30	WM1	>5.0	<0.5	>5.0
31	WM2	>5.0	<0.5	>5.0
31	YM1	>5.0	>5.0	>5.0
31	WM1	0.58	<0.5	<0.25
32	YM1	>5.0	<0.5	>5.0
32	YM1	2.3	<0.5	0.35
32	WM1	<0.4	<0.5	<0.25
32	WM1	>5.0	<0.5	>5.0
32	YM1	0.54	<0.5	0.34
32	YM1	<0.4	<0.5	0.45
33	YM1	>5.0	>5.0	>5.0
33	WM1	>5.0	<0.5	<0.25
33	WM1	>5.0	<0.5	>5.0
34	WM1	>5.0	<0.5	3.1
34	WM1	>5.0	4.9	1.1
34	YM1	>5.0	>5.0	>5.0
34	WM1	>5.0	3.2	>5.0
35	WM1	>5.0	<0.5	<0.25
36	WM1	>5.0	<0.5	>5.0
36	YM1	>5.0	<0.5	>5.0

n	Season	% Samples positive for CP4 EPSPS
100	2011/12	93
77	2010/11	88

n	Season	% Samples positive for NK603 (RUR) (ELISA)
90	2009/10	61
90	2008/09	90
100	2007/08	69

LOQ: Limit of Quantification

TABLE 22: Mycotoxin results - Maize Crop Quality 2011/2012

Region	Grade	Aflatoxin µg/kg G₁ LOQ: 5 µg/kg	B₁ LOQ: 5 µg/kg	G₂ LOQ: 5 µg/kg	B₂ LOQ: 5 µg/kg	Total	Fumonisin µg/kg B₁ LOQ: 20 µg/kg	B₂ LOQ: 20 µg/kg	B₃ LOQ: 20 µg/kg	Total	DON µg/kg LOQ: 100 µg/kg	15-ADON LOQ: 20 µg/kg	Ochratoxin A µg/kg LOQ: 5 µg/kg	Zearalenone µg/kg LOQ: 20 µg/kg	HT-2 LOD: 20 µg/kg	T-2 µg/kg LOQ: 20 µg/kg
10	YM1	0	0	0	0	0	272	125	<20	397	<100	21	0	0	0	0
11	YM1	0	0	0	0	0	501	169	50	720	0	0	0	0	0	0
11	YM1	0	0	0	0	0	59	21	<20	80	<100	<20	0	<20	0	0
12	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	WM1	0	0	0	0	0	33	<20	0	33	0	0	0	0	0	0
13	WM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	YM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	WM1	0	0	0	0	0	612	386	47	1 045	0	0	0	0	0	0
14	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	WM1	0	0	0	0	0	329	136	21	486	0	0	0	0	0	0
14	WM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	WM1	0	0	0	0	0	33	<20	0	33	0	0	0	0	0	0
14	WM2	0	0	0	0	0	1 115	437	96	1 648	<100	0	0	0	0	0
14	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	YM2	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
14	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	WM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
15	WM1	0	0	0	0	0	108	53	<20	161	<100	<20	0	<20	0	0
16	YM1	0	0	0	0	0	295	80	32	407	<100	0	0	0	0	0
16	WM1	0	0	0	0	0	235	77	20	332	0	0	0	0	0	0
16	WM2	0	0	0	0	0	25	<20	0	25	0	0	0	0	0	0
17	WM2	0	0	0	0	0	556	195	43	794	<100	0	0	0	0	0
17	WM1	0	0	0	0	0	1 569	571	95	2 235	0	0	0	0	0	0
17	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 22: Mycotoxin results - Maize Crop Quality 2011/2012 (continue)

Region	Grade	Aflatoxin µg/kg G1	B1	G2	B2	Total	Fumonisin µg/kg B1	B2	B3	Total	DON µg/kg	15-ADON	Ochratoxin A µg/kg	Zearalenone µg/kg	HT-2	T-2 µg/kg
		LOQ: 5 µg/kg	LOQ: 5 µg/kg	LOQ: 5 µg/kg	LOQ: 5 µg/kg		LOQ: 20 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg		LOQ: 100 µg/kg	LOQ: 20 µg/kg	LOQ: 5 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg
18	WM2	0	0	0	0	0	<20	<20	0	0	485	85	0	297	0	0
18	WM2	0	0	0	0	0	1 445	471	85	2 001	0	0	0	0	0	0
19	COM	0	0	0	0	0	468	246	27	741	0	0	0	0	0	0
19	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	WM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
19	COM	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
20	WM1	0	0	0	0	0	<20	0	0	0	140	31	0	<20	0	0
21	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	WM1	0	0	0	0	0	0	0	0	0	<100	0	0	<20	0	0
21	WM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	WM1	0	0	0	0	0	219	100	20	339	0	0	0	0	0	0
21	WM1	0	0	0	0	0	0	0	0	0	<100	0	0	0	0	0
22	WM1	0	0	0	0	0	58	<20	<20	58	0	0	0	0	0	0
22	WM1	0	0	0	0	0	43	<20	<20	43	120	28	0	<20	0	0
22	WM2	0	0	0	0	0	3 051	1 146	222	4 419	<100	0	0	0	0	<20
23	COM	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
23	WM2	0	0	0	0	0	74	22	<20	96	<100	0	0	0	0	0
23	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	YM2	0	0	0	0	0	<20	<20	0	0	0	0	0	0	0	0
23	WM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
23	WM1	0	0	0	0	0	97	42	<20	139	0	0	0	0	0	0
24	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	WM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
24	YM2	0	0	0	0	0	21	<20	0	21	<100	<20	0	0	0	0
25	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	YM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	YM1	0	0	0	0	0	20	<20	0	20	<100	0	0	0	0	0
26	YM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	WM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 22: Mycotoxin results - Maize Crop Quality 2011/2012 (continue)

Region	Grade	Aflatoxin µg/kg					Fumonisin µg/kg				DON µg/kg	15-ADON	Ochratoxin A µg/kg	Zearalenone µg/kg	HT-2	T-2 µg/kg
		G_1 LOQ: 5 µg/kg	B_1 LOQ: 5 µg/kg	G_2 LOQ: 5 µg/kg	B_2 LOQ: 5 µg/kg	Total	B_1 LOQ: 20 µg/kg	B_2 LOQ: 20 µg/kg	B_3 LOQ: 20 µg/kg	Total	LOQ: 100 µg/kg	LOQ: 20 µg/kg	LOQ: 5 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg
27	YM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
28	WM1	0	0	0	0	0	0	0	0	0	<100	0	0	0	0	0
28	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	YM1	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0
29	YM1	0	0	0	0	0	202	57	0	259	0	0	0	0	0	0
29	**YM2**	0	0	0	0	0	0	0	0	0	<100	0	0	<20	0	0
29	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	YM1	0	0	0	0	0	26	<20	0	26	<100	<20	0	0	0	0
30	YM1	0	0	0	0	0	27	<20	0	27	0	0	0	0	0	0
30	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	WM1	0	0	0	0	0	0	0	0	0	<100	<20	0	0	0	0
30	YM1	0	0	0	0	0	0	0	0	0	303	24	0	200	0	0
30	*YM1*	0	0	0	0	0	*<20*	0	0	0	*<100*	*<20*	0	0	*0*	*0*
30	*WM2*	0	0	0	0	0	0	0	0	0	*<100*	*0*	0	*<20*	*0*	*0*
31	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	YM1	0	0	0	0	0	0	0	0	0	<100	<20	0	0	0	0
32	YM1	0	0	0	0	0	239	88	<20	327	<100	0	0	0	0	0
32	WM1	0	0	0	0	0	119	<20	<20	119	0	0	0	<20	0	0
32	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	YM1	0	0	0	0	0	314	360	21	695	<100	0	0	0	0	0
32	YM1	0	0	0	0	0	203	68	<20	271	0	0	0	0	0	0
32	YM1	0	0	0	0	0	0	0	0	0	0	0	0	<20	0	0
32	WM1	0	0	0	0	0	0	0	0	0	<100	0	0	0	0	0

TABLE 22: Mycotoxin results - Maize Crop Quality 2011/2012 (continue)

Region	Grade	Aflatoxin µg/kg					Fumonisin µg/kg				DON µg/kg	15-ADON	Ochratoxin A µg/kg	Zearalenone µg/kg	HT-2	T-2 µg/kg
		G₁	B₁	G₂	B₂	Total	B₁	B₂	B₃	Total						
		LOQ: 5 µg/kg	LOQ: 5 µg/kg	LOQ: 5 µg/kg	LOQ: 5 µg/kg		LOQ: 20 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg		LOD: 100 µg/kg	LOQ: 20 µg/kg	LOQ: 5 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg	LOQ: 20 µg/kg
33	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	YM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	WM1	0	0	0	0	0	102	45	<20	147	0	0	0	0	0	0
35	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	WM1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	YM1	0	0	0	0	0	<20	0	0	0	0	0	0	0	0	0
Total number of samples		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Average of total number of samples		0	0	0	0	0	125	49	8	182	10	2	0	5	0	0
Number of positive results		0	0	0	0	0	33	22	13	33	4	5	0	2	0	0
Average of positive results		-	-	-	-	-	379	223	60	551	262	38	-	249	-	-

Note: All non detected results are reported as 0
LOQ: Limit of quantitation
µg/kg = ppb (parts per billion)