SOUTH AFRICAN

Maize Crop Quality Report 2001/2002 Season

INDEX

Compiled and issued by the:

Southern African Grain Laboratory
3rd Floor
CSIR building no.4
Meiring Naudé Street
Pretoria
SOUTH AFRICA

P.O. Box 1059
SILVERTON
0127

Tel: +27 (12) 349 2683
Fax: +27(12) 349 2686
E-mail: sagl@mweb.co.za
www.sagl.co.za

SOUTH AFRICAN

COMMERCIAL MAIZE QUALITY

2001/2002

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* **The Grain Silo Industry and its members in providing the samples to make this survey possible.**

Introduction

The final production estimate for maize for the 2001/2002 season by the National Crop Estimates Committee was 8 781 480 tons. According to SAGIS the progressive producer deliveries from May to November 2002 were 8 436 900 tons. The major maize-producing region was the Free State (2 896 000 tons), closely followed by the North West (2 609 500 tons). White maize contributed 58% to the total production.

900 samples, proportionally representing white and yellow maize of each production region, were analysed for quality. All samples were graded according to RSA and USA grading regulations, and 100 kernel weight, kernel size, breakage susceptibility, stress cracks, milling index, fat, protein, starch and whiteness index were determined. Mycotoxin analyses were performed on 90 randomly selected samples representative of white and yellow maize produced per region.

The 900 samples analysed consisted of 471 white maize samples and 429 yellow maize samples. Of the 471 white maize samples analysed, 63% were WM1, 33% WM2, 3% WM3 and 1% was of the Class Other Maize white. Of the 429 yellow maize samples analysed, 59% were YM1, 36% YM2, 2% YM3 and 3% were of the Class Other Maize yellow.

Crop quality

The 5-year average of South Africa's maize production average about 8 million tons. The maize quality of the 2001/2002 season was good, but not as good as the previous season, although no or very little fungi infection was found on the maize this season (in contrast to last season).

The average hectolitre mass was 77.0 kg/hl (78.0 during 2000/2001). The total percentage of defective kernels was 7.2, which is higher than last year's 5.8 but in line with the 5-year average.

The kernel size was a little smaller than the previous two years. Breakability of the kernels as well as stress cracks within the kernels was average compared with previous years.

The fat content was 4.2% (db), starch content 75.5% (db) and protein 8.9% (db), which is above the 5-year average.

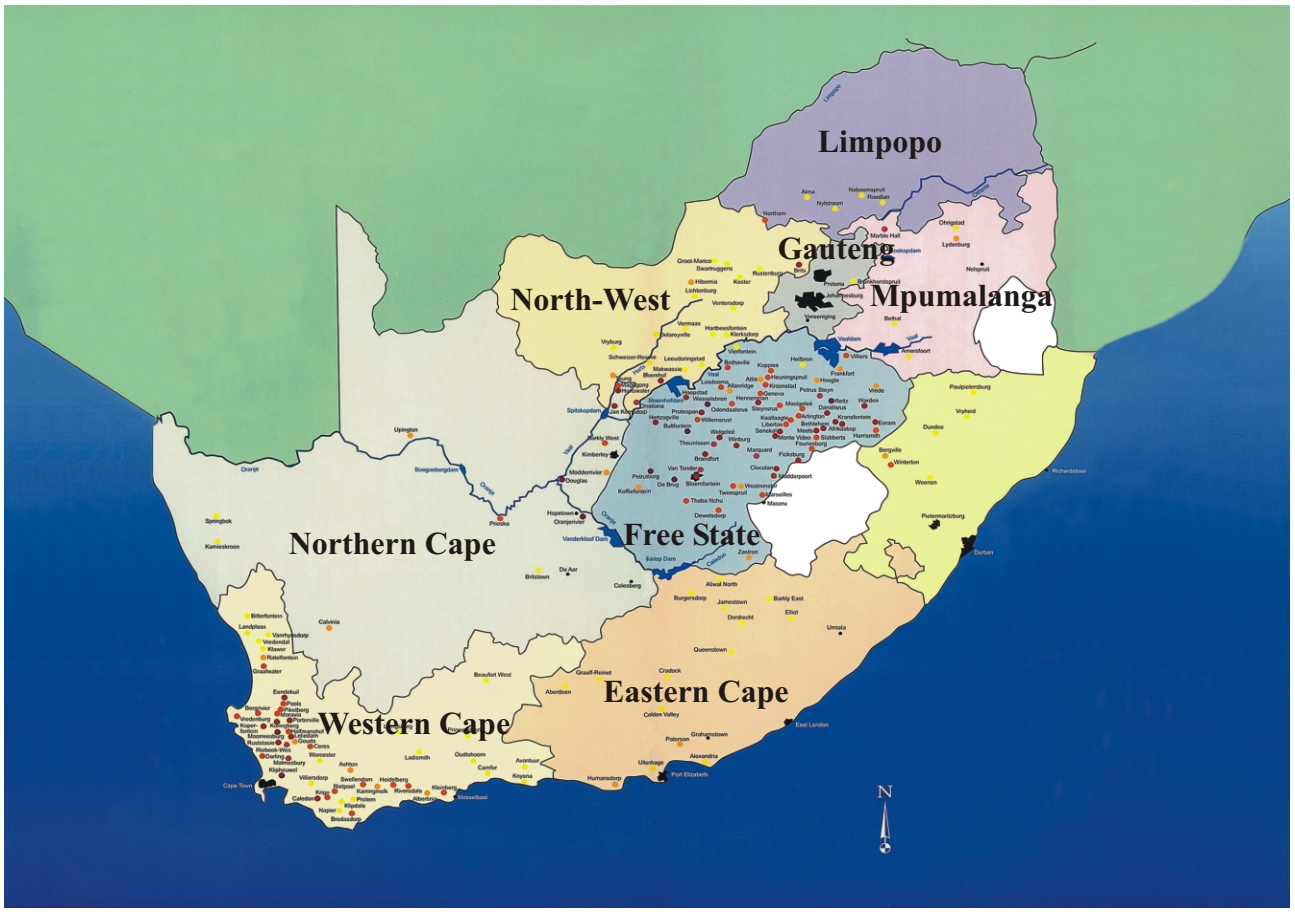
Production regions

The RSA is divided into 36 grain-production regions. Regions one to nine are winter rainfall areas (Western Cape) as well as the Eastern Cape and Karoo where no commercial maize is being produced. Region 10 is Griqualand West and region 11 Vaalharts in the North-West Province.

Regions 12 to 20 are all within the North West and regions 21 to 28 in the Free State. These two provinces contributed 63% of the total maize production in the RSA.

Regions 29 to 33 are within Mpumalanga, which is the third largest grain-producing province. Region 34 falls within Gauteng, region 35 within the Limpopo Province and region 36 within KwaZulu-Natal.

South African Provinces



Maize quality

Free State

This province produced 33% of all the commercial maize in South Africa, of which 65% was white maize and 35% yellow maize.

The physical characteristics of the white maize were noticeably better than those of the yellow maize. White maize is traditionally planted for human consumption and yellow maize for animal feed. The white maize averaged a higher hectolitre mass of 77.1 kg/hl (yellow 76.1 kg/hl), had a higher kernel size above 10 mm of 17.1% (yellow 11.9%) and averaged on 100 kernel mass white 28.7 g against yellow 28.3 g. The total defective kernels percentage was much lower in the white maize (7.5) compared to the yellow maize (10.4).

The Free State maize averaged a high of 8.4% as regards the amount of stress cracks and had the highest breakability (2.5%) compared with the North-West and Mpumalanga.

No significant differences existed in the different nutritional parameters between the white and yellow maize and between the maize from the Free State, North-West and Mpumalanga.

The white maize from the Free State averaged a good milling index (94.0) and the whiteness index showed that the maize meal made from Free State maize gave a whiter meal (18.3 index) compared with the North-West (17.8 index) and Mpumalanga (14.2 index).

North-West

This province produced 30% of all the commercial maize grown in South Africa, of which 72% was white maize and 28% yellow maize.

The physical characteristics of the maize from the North-West averaged better than the maize of the Free State. A 100 kernel mass of 30.7 g (Free State 28.5 g), a higher kernel size above 10 mm of 17.5% (Free State 14.5%) and averaged on the hectolitre mass (North-West 76.5 kg/hl compared to Free State 76.5 kg/hl). The white maize had a better physical quality than the yellow maize. The total defective kernels percentage was 8.4%, which is lower than the Free State and Mpumalanga.

The amount of stress cracks averaged 5.2% and the breakability 2.4%. The results show that the white maize from the North-West is less likely to break during handling or storage.

The milling index and whiteness index compared with those of the Free State.

Mpumalanga

This province produced 21% of the total commercial maize production in South Africa, of which 45% was white maize and 55% yellow maize.

This maize gave the best physical appearance measured against the maize of the Free State and North-West, and had a hectolitre mass of 77.8 kg/hl, a 100 kernel mass of 32.1 g and kernel size above 10 mm of 21%. The total defective kernels percentage was the highest (9.3%).

The breakability percentage averaged lower (2,0%) than the Free State or North-West. The amount of stress cracks present in the maize (6,8%) was higher than the North-West but lower than the Free State.

The maize from Mpumalanga had the highest milling index (98.3) of the three provinces compared here, but the difference between these three provinces are not really significant. The maize meal colour was not as white as that from the Free State or North-West.

Grain Production Regions

With each region is given the different Grain Handlers with specific silos.

Region 10: Griekwaland-West Region

GWK	Douglas	*GWK*	Prieska
GWK	Rietrivier	*GWK*	Marydale
GWK	Modderrivier	*KOLK*	Oranjerivierstasie
KOLK	Britstown	*Oranje*	Upington

Region 11: Vaalharts Region

Senwes	Hartswater	*Senwes*	Jan Kemp
Senwes	Magogong	*Senwes*	Taung
GWK	Barkly-Wes		

Region 12: North-West Western Region

NWK	Bloubank	*NWK*	Buhrmannsdrif
NWK	Kameel	*NWK*	Madibogo
NWK	Mafikeng	*NWK*	Mareetsane
NWK	Piet Plessis	*NWK*	Vergeleë
Suidwes Landbou	Kameel	*Suidwes Landbou*	Vryburg
	Kraaipan		Springbokpan
	Vryhof		

Region 13: North-West Central Region (Sannieshof)

NWK	Biesiesvlei	*NWK*	Bossies
NWK	Gerdau	*NWK*	Oppaslaagte
NWK	Sannieshof		

Region 14: North-West Southern Region

NWK	Barberspan	*NWK*	Delareyville
NWK	Excelsior	*NWK*	Geysdorp
NWK	Migdol	*NWK*	Nooitgedacht
NWK	Taaibospan	*Suidwes Landbou*	Amalia
Suidwes Landbou	Hallat's Hope	*Suidwes Landbou*	Migdol
Suidwes Landbou	Schweizer-Reneke		

Region 15: North-West South Eastern Region

Suidwes Landbou	Bloemhof	*Suidwes Landbou*	Christiana
Suidwes Landbou	Hertzogville	*Suidwes Landbou*	Hoopstad
Suidwes Landbou	Kingswood		

Region 16: North-West Central Eastern Region

Senwes	Regina	*Senwes*	Klerksdorp
Suidwes Landbou	Bamboesspruit	*Suidwes Landbou*	Leeudoringstad
Suidwes Landbou	Makwassie	*Suidwes Landbou*	Strydpoort
Suidwes Landbou	Wolmaranstad		

Region17: North-West Central Northern Region (Ottosdal)

NWK	Bospoort	*NWK*	Kleinharts

Grain Production Regions (continue)

With each region is given the different Grain Handlers with specific silos.

Region17: North-West Central Northern Region (Ottosdal)

NWK	Ottosdal	*NWK*	Rostrataville
NWK	Bospoort	*NWK*	Kleinharts
NWK	Ottosdal	*NWK*	Rostrataville
NWK	Vermaas	*Senwes*	Hartbeesfontein
Senwes	Melliodora	*Senwes*	Werda

Region 18: North West Central Region (Ventersdorp)

NWK	Bodenstein	*NWK*	Coligny
Senwes	Buckingham	*Senwes*	Makokskraal
Senwes	Ventersdorp	*Senwes*	Enselspruit

Region 19: North-West Central Region (Lichtenburg)

NWK	Grootpan	*NWK*	Halfpad
NWK	Hibernia	*NWK*	Lichtenburg
NWK	Lottiehalte	*NWK*	Lusthof

Region 20: North-West Eastern Region

MGK	Battery	*MGK*	Brits
MGK	Rustenburg	*NWK*	Boons
NWK	Derby	*NWK*	Koster
NWK	Swartruggens	*NWK*	Syferbult

Region 21: Free State North Western Region (Viljoenskroon)

Senwes	Attie	*Senwes*	Groenebloem
Senwes	Heuningspruit	*Senwes*	Koppies
Senwes	Rooiwal	*Senwes*	Vierfontein
Senwes	Viljoenskroon	*Senwes*	Vredefort
Senwes	Weiveld		

Region 22: Free State North Western Region (Bothaville)

Senwes	Allanrigde	*Senwes*	Bothaville
Senwes	Mirage	*Senwes*	Odendaalsrus
Senwes	Schoonspruit	*Senwes*	Schuttesdraai

Region 23: Free State North Western Region (Bultfontein)

Senwes	Bultfontein	*Senwes*	Losdoorns
Senwes	Protespan	*Senwes*	Tierfontein
Senwes	Wesselsbron	*Senwes*	Willemsrust

Region 24: Free State Central Region

Senwes	Bloemfontein	*Senwes*	Brandfort
Senwes	De Brug	*Senwes*	Geneva
Senwes	Hennenman	*Senwes*	Koffiefontein
Senwes	Kroonstad	*Senwes*	Petrusburg

Grain Production Regions (continue)

With each region is given the different Grain Handlers with specific silos.

Region 24: Free State Central Region

Senwes	Theunissen	*Senwes*	Van Tonder
Senwes	Welgeleë	*Senwes*	Winburg

Region 25: Free State South Western Region

OVK	Marseilles	*OVK*	Modderpoort
OVK	Tweespruit	*OVK*	Westminster
OVK	Zastron	*OVK*	Clocolan
OVK	Ficksburg	*OVK*	Fouriesburg
Senwes	De Wetsdorp	*OTK*	Bethlehem
OTK	Slabberts		

Region 26: Free State South Eastern Region

Senwes	Arlington	*Senwes*	Steynsrus
OTK	Libertas	*OTK*	Marquard

Region 26: Free State South Eastern Region

TK	Monte Video	OTK	Senekal
OTK	Kaallaagte	*OTK*	Meets

Region 27: Free State Northern Region

Senwes	Gottenburg	*Senwes*	Heilbron
Senwes	Hoogte	*Senwes*	Mooigeleë
Senwes	Wolwehoek	*VKB*	Petrus Steyn

Region 28: Free State Eastern Region

OTK	Afrikaskop	*OTK*	Eeram
OTK	Harrismith	*OTK*	Kransfontein
VKB	Cornelia	*VKB*	Daniëlsrus
VKB	Frankfort	*VKB*	Jim Fouché
VKB	Reitz	*VKB*	Tweeling
VKB	Villiers	*VKB*	Warden
VKB	Windfield	*VKB*	Ascent
VKB	Memel	*VKB*	Vrede

Region 29: Mpumalanga Southern Region

OTK	Balfour	*OTK*	Greylingstad
OTK	Grootvlei	*OTK*	Harvard
OTK	Holmdene	*OTK*	Leeuspruit
OTK	Platrand	*OTK*	Standerton
OTK	Val		

Region 30: Mpumalanga Eastern Region

OTK	Amersfoort	*OTK*	Badplaas
OTK	Carolina	*OTK*	Davel

Grain Production Regions (continue)

With each region is given the different Grain Handlers with specific silos.

Region 30: Mpumalanga Eastern Region

OTK	Ermelo	*OTK*	Estancia
OTK	Lothair	*OTK*	Maizefield
OTK	Morgenzon	*OTK*	Overvaal
TWK	Mkondo	*TWK*	Panbult

Region 31: Mpumalanga Central Region

OTK	Bethal	*OTK*	Devon
OTK	Kinross	*OTK*	Leslie
OTK	Trichardt		

Region 32: Mpumalanga Western Region

OTK	Argent	*OTK*	Dryden
OTK	Endicott	*OTK*	Eloff
OTK	Hawerklip	*OTK*	Kendal
OTK	Ogies		

Region 33: Mpumalanga Northern Region

OTK	Driefontein	*OTK*	Lydenburg
OTK	Marble Hall	*OTK*	Middelburg
OTK	Stoffberg	*OTK*	Pan
OTK	Arnot	*OTK*	Wonderfontein

Region 34: Gauteng Region

OTK	Bloekomspruit	*OTK*	Glenroy
OTK	Goeie Hoek	*OTK*	Kaalfontein
OTK	Nigel	*OTK*	Bronkhorstspruit
Senwes	Middelvlei	*Senwes*	Oberholzer
Senwes	Raathsvlei		

Region 35: Limpopo Region

MGK	Northam	*NTK*	Alma
NTK	Crecy	*NTK*	Immerpan
NTK	Lehau	*NTK*	Naboomspruit
NTK	Nylstroom	*NTK*	Pienaarsrivier
NTK	Pietersburg	*NTK*	Potgietersrus
NTK	Roedtan	*NTK*	Settlers
NTK	Tzaneen	*NTK*	Vaalwater
NTK	Warmbad	*NTK*	Nutfield

Region 36: Kwazulu-Natal Region

Natalagri	Bergville	*Natalagri*	Bloedrivier
Natalagri	Dannhauser	*Natalagri*	Dundee
Natalagri	Mizpah	*Natalagri*	Paulpietersburg
Natalagri	Vryheid	*Natalagri*	Winterton
Natalagri	New Amalfi		

TABLE 1: COMMERCIAL WHITE AND YELLOW MAIZE - FINAL PRODUCTION ESTIMATES FOR THE 2001/02 SEASON COMPARED TO THE 2000/01 SEASON

PROVINCES	FINAL ESTIMATE 2001/02			SAGIS*	% more than 2000/01	FINAL ESTIMATE 2000/01		
	White Tons	Yellow Tons	Total Tons			White Tons	Yellow Tons	Total Tons
Western Cape	480	14,000	14,480	2,300	67.6	840	7,800	8,640
Northern Cape	33,800	421,400	455,200	407,600	43.0	29,750	288,550	318,300
Free State	1,888,000	1,008,000	2,896,000	2,715,000	11.6	1,647,000	949,000	2,596,000
Eastern Cape	10,500	28,000	38,500	18,800	-14.1	19,600	25,200	44,800
Kwazulu-Natal	135,000	244,800	379,800	276,700	53.6	81,600	165,600	247,200
Mpumalanga	828,000	1,029,500	1,857,500	1,925,300	26.6	599,200	868,000	1,467,200
Limpopo	82,250	16,250	98,500	130,200	11.9	68,800	19,200	88,000
Gauteng	216,000	216,000	432,000	500,600	34.2	168,000	154,000	322,000
North-West	1,872,000	737,500	2,609,500	2,460,400	22.3	1,495,000	638,000	2,133,000
Total RSA	5,066,030	3,715,450	8,781,480	8,436,900	21.5	4,109,790	3,115,350	7,225,140
% of crop	57,59	42,31				56.88	43.12	

Figures obtained from the National Crop Estimates Committee

SAGIS* progressive producer deliveries

TABLE 2: RSA GRADING OF WHITE MAIZE (2001/2002)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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 10	1.4	1.4	1.4	0.9	0.9	0.9	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Region 11	3.4	2.1	5.7	1.5	0.7	2.2	4.9	3.8	6.3	0.0	0.0	0.0	0.6	0.0	1.6	5.5	3.9	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Region 12	2.9	1.4	4.6	1.2	0.1	4.1	4.1	2.3	6.0	0.0	0.0	0.1	0.1	0.0	0.8	4.3	2.5	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.4	0.1	0.0	0.4
7	Region 13	2.5	0.7	5.9	0.9	0.4	1.4	3.4	1.7	6.5	0.1	0.0	0.3	0.1	0.0	0.4	3.6	1.9	6.8	0.0	0.0	0.0	0.1	0.0	0.4	0.2	0.0	0.9	0.3	0.0	1.2
26	Region 14	3.1	0.9	6.1	0.7	0.0	2.3	3.7	0.9	6.7	0.0	0.0	0.2	0.1	0.0	0.3	3.8	0.9	6.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.3
21	Region 15	2.6	1.2	4.6	0.8	0.2	1.7	3.4	2.1	5.3	0.1	0.0	0.3	0.2	0.0	1.3	3.7	2.3	5.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.5	0.1	0.0	0.8
22	Region 16	3.5	0.7	5.4	1.0	0.5	1.6	4.5	1.5	6.5	0.0	0.0	0.3	0.3	0.0	2.1	4.8	1.6	6.7	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.5	0.2	0.0	0.5
9	Region 17	3.5	1.6	5.4	1.1	0.4	1.8	4.6	2.0	6.7	0.1	0.0	0.3	0.1	0.0	0.3	4.8	2.3	7.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.0	0.4	0.2	0.0	0.6
9	Region 18	3.6	2.4	4.8	1.1	0.5	2.8	4.7	3.7	6.2	0.0	0.0	0.0	0.3	0.0	0.9	5.0	3.7	6.3	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.1	0.0	0.4
9	Region 19	3.1	1.6	5.1	0.8	0.1	1.3	3.8	2.5	5.3	0.0	0.0	0.1	0.2	0.0	1.0	4.1	2.6	5.8	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.3	0.1	0.0	0.6
11	Region 20	3.7	2.3	6.1	0.8	0.4	1.7	4.5	3.1	6.9	0.1	0.0	0.2	0.2	0.0	1.0	4.8	3.2	7.0	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.2
11	Region 21	3.8	2.1	5.4	1.3	0.0	3.1	5.1	2.9	6.9	0.0	0.0	0.1	0.1	0.0	0.4	5.2	2.9	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.1	0.0	0.7
15	Region 22	3.9	2.9	4.9	1.3	0.3	2.1	5.2	3.9	6.8	0.0	0.0	0.3	0.1	0.0	0.6	5.4	3.9	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.1	0.0	0.3
27	Region 23	4.1	1.8	5.7	1.4	0.4	2.5	5.5	3.0	7.0	0.0	0.0	0.2	0.1	0.0	0.5	5.6	3.3	7.1	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.4	0.1	0.0	0.4
18	Region 24	3.6	1.1	5.5	1.2	0.4	2.3	4.8	2.3	6.7	0.0	0.0	0.3	0.1	0.0	0.3	4.9	2.5	6.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.4
12	Region 25	3.5	1.5	6.1	1.2	0.0	3.1	4.6	1.5	6.9	0.1	0.0	0.3	0.1	0.0	0.4	4.8	1.5	7.3	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	3.4	0.4	0.0	3.4
7	Region 26	4.4	3.5	5.6	1.0	0.2	2.4	5.4	3.7	6.7	0.1	0.0	0.2	0.1	0.0	0.4	5.6	3.8	7.2	0.0	0.0	0.0	0.1	0.0	0.4	0.2	0.0	0.4	0.2	0.0	0.8
5	Region 27	3.1	2.0	4.1	1.7	0.3	3.3	4.8	3.0	5.8	0.0	0.0	0.1	0.2	0.0	0.4	5.1	3.2	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
12	Region 28	3.7	2.3	5.5	1.5	0.0	2.8	5.2	4.2	6.2	0.0	0.0	0.2	0.2	0.0	0.4	5.5	4.3	6.6	0.0	0.0	0.0	0.1	0.0	0.3	0.1	0.0	0.4	0.2	0.0	0.4
4	Region 29	4.0	2.7	5.9	0.8	0.3	1.1	4.8	3.0	6.6	0.0	0.0	0.1	0.1	0.0	0.5	4.9	3.2	6.6	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.7	0.3	0.1	0.8
8	Region 30	4.7	3.1	6.1	0.8	0.5	1.3	5.5	3.9	6.8	0.1	0.0	0.2	0.1	0.0	0.2	5.6	3.9	7.0	0.0	0.0	0.0	0.1	0.0	0.4	0.2	0.0	1.2	0.3	0.0	1.3
4	Region 31	5.1	4.9	5.6	0.7	0.3	1.0	5.8	5.2	6.6	0.0	0.0	0.1	0.2	0.0	0.4	6.1	5.4	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
4	Region 32	5.1	3.9	6.2	0.8	0.4	1.4	5.9	4.3	6.8	0.0	0.0	0.2	0.2	0.0	0.5	6.2	4.4	7.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
5	Region 33	5.4	3.4	6.6	0.9	0.4	1.4	6.2	3.8	7.0	0.0	0.0	0.1	0.1	0.0	0.4	6.4	4.2	7.2	0.0	0.0	0.0	0.1	0.0	0.4	0.2	0.0	0.7	0.3	0.0	0.8
11	Region 34	4.2	3.0	5.4	1.7	0.4	3.0	5.9	4.1	6.9	0.0	0.0	0.2	0.3	0.0	1.6	6.3	4.2	7.5	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.4	0.1	0.0	0.6
12	Region 35	3.7	1.9	5.8	1.3	0.2	2.9	5.0	2.6	6.9	0.0	0.0	0.1	0.1	0.0	0.3	5.1	2.6	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.1	0.0	0.4
7	Region 36	4.5	2.6	5.8	1.6	1.0	2.4	6.2	4.8	6.9	0.0	0.0	0.2	0.1	0.0	0.4	6.3	4.8	7.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.3	0.1	0.0	0.3
298	**Mean WM1**	3.6			1.1			4.7			0.0			0.2			4.9			0.0			0.0			0.1			0.1		
	Min WM1		0.7			0.0			0.9			0.0			0.0			0.9			0.0			0.0			0.0			0.0	
	Max WM1			6.6			4.1			7.0			0.3			2.1			7.5			0.5			0.4			3.4			3.4

TABLE 2: RSA GRADING OF WHITE MAIZE (2001/2002) (continue)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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: WM2																														
1	Region 10	8.3	8.3	8.3	1.2	1.2	1.2	9.5	9.5	9.5	0.1	0.1	0.1	0.0	0.0	0.0	9.6	9.6	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 11	7.0	6.4	7.5	1.9	1.3	2.6	8.9	7.6	10.2	0.0	0.0	0.1	0.4	0.3	0.6	9.4	8.3	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.1	0.0	0.3
2	Region 13	6.1	5.0	7.1	1.6	1.1	2.2	7.7	7.3	8.2	0.0	0.0	0.1	0.9	0.8	1.1	8.7	8.4	9.0	0.0	0.0	0.0	0.1	0.0	0.2	0.6	0.4	0.8	0.7	0.5	0.8
2	Region 14	6.1	2.9	9.3	3.2	1.8	4.7	9.3	7.6	11.0	0.1	0.0	0.1	0.1	0.0	0.3	9.5	7.6	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.2	0.0	0.4
3	Region 16	4.9	2.8	8.1	1.4	1.0	2.0	6.3	4.1	10.1	0.3	0.1	0.4	0.3	0.0	0.5	6.9	5.0	10.5	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.5	0.3	0.1	0.5
2	Region 17	7.3	7.2	7.4	0.8	0.2	1.4	8.1	7.4	8.8	0.0	0.0	0.0	0.2	0.0	0.4	8.3	7.8	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Region 18	8.1	6.8	9.7	1.2	1.0	1.5	9.4	8.3	11.0	0.1	0.0	0.4	0.2	0.0	0.3	9.6	8.5	11.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	1.6	0.3	0.0	1.8
3	Region 19	5.6	1.9	7.8	1.2	0.2	2.1	6.8	4.0	9.0	0.1	0.0	0.2	1.6	0.0	4.8	8.5	7.5	9.0	0.0	0.0	0.0	0.2	0.0	0.3	1.4	0.0	4.2	1.5	0.0	4.3
1	Region 20	6.2	6.2	6.2	1.7	1.7	1.7	7.8	7.8	7.8	0.0	0.0	0.0	0.0	0.0	0.0	7.8	7.8	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Region 21	7.5	4.8	11.0	1.6	0.4	2.7	9.1	7.1	12.5	0.1	0.0	0.4	0.1	0.0	0.3	9.3	7.2	12.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.1	0.0	0.6
16	Region 22	6.7	5.1	9.2	1.7	0.9	3.3	8.4	7.1	11.7	0.1	0.0	0.4	0.1	0.0	1.0	8.6	7.1	11.9	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.4	0.2	0.0	0.7
6	Region 23	6.2	4.9	8.0	2.0	1.1	2.5	8.2	7.1	10.4	0.1	0.0	0.2	0.2	0.0	0.5	8.5	7.2	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.1	0.0	0.5
9	Region 24	6.8	2.4	11.5	2.8	0.7	6.7	9.6	7.3	12.9	0.1	0.0	0.5	0.2	0.0	1.4	9.9	7.3	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2
12	Region 25	6.1	3.8	9.6	2.2	0.8	3.4	8.3	6.3	11.3	0.1	0.0	0.4	0.3	0.0	2.1	8.6	6.7	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.1	0.0	0.4
8	Region 26	6.5	5.4	8.3	2.5	1.2	3.8	9.0	7.5	11.0	0.0	0.0	0.2	0.5	0.0	1.1	9.5	8.0	11.9	0.0	0.0	0.0	0.1	0.0	0.4	0.1	0.0	0.3	0.2	0.0	0.5
6	Region 27	6.9	4.2	9.9	1.8	0.7	3.5	8.7	7.1	10.9	0.0	0.0	0.1	0.5	0.0	1.1	9.2	7.4	11.5	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.4	0.1	0.0	0.5
5	Region 28	6.5	3.1	7.6	1.1	0.3	2.1	7.6	5.2	8.7	0.1	0.0	0.4	0.7	0.2	2.1	8.4	5.9	10.8	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.2	0.2	0.1	0.4
11	Region 29	7.8	5.8	9.8	1.0	0.6	1.5	8.8	7.0	10.4	0.0	0.0	0.1	0.1	0.0	0.3	8.9	7.0	10.7	0.0	0.0	0.0	0.1	0.0	0.5	0.3	0.0	1.0	0.4	0.0	1.0
14	Region 30	8.1	5.1	11.9	1.3	0.3	3.1	9.4	7.5	12.6	0.1	0.0	0.3	0.4	0.0	1.2	9.9	7.8	13.2	0.0	0.0	0.0	0.2	0.0	1.3	0.1	0.0	0.6	0.4	0.0	1.4
4	Region 31	8.4	6.4	10.1	1.0	0.5	1.6	9.4	8.0	10.6	0.0	0.0	0.1	0.5	0.1	0.9	9.9	8.4	11.6	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.8	0.5	0.2	0.9
6	Region 32	8.9	4.8	11.2	1.2	0.2	1.7	10.1	6.5	12.5	0.0	0.0	0.1	0.8	0.0	1.4	10.9	7.6	13.4	0.0	0.0	0.0	0.1	0.0	0.6	0.4	0.0	0.9	0.5	0.0	1.4
5	Region 33	7.1	5.1	8.9	1.4	0.4	2.1	8.5	7.2	10.4	0.1	0.0	0.4	0.3	0.0	1.2	8.9	7.3	10.8	0.0	0.0	0.0	0.2	0.0	0.7	0.2	0.0	0.8	0.5	0.0	0.8
12	Region 34	6.3	3.8	8.1	1.8	0.3	3.8	8.2	6.2	10.6	0.1	0.0	0.2	0.9	0.0	5.2	9.1	7.4	12.8	0.0	0.0	0.0	0.1	0.0	0.3	0.2	0.0	0.9	0.3	0.0	0.9
3	Region 35	8.0	6.7	8.8	1.5	0.9	2.0	9.5	8.2	10.8	0.0	0.0	0.0	0.0	0.0	0.1	9.5	8.2	10.8	0.2	0.0	0.5	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.0	0.2
1	Region 36	6.9	6.9	6.9	1.0	1.0	1.0	7.9	7.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0	7.9	7.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	**Mean WM2**	7.1			1.7			8.7			0.1			0.4			9.2			0.0			0.1			0.2			0.3		
	Min WM2		1.9			0.2			4.0			0.0			0.0			5.0			0.0			0.0			0.0			0.0	
	Max WM2			11.9			6.7			12.9			0.5			5.2			14.8			0.5			1.3			4.2			4.3

TABLE 2: RSA GRADING OF WHITE MAIZE (2001/2002) (continue)

Number of samples	Region	%Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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: WMB																														
1	Region 14	18.5	18.5	18.5	5.6	5.6	5.6	24.1	24.1	24.1	0.0	0.0	0.0	5.3	5.3	5.3	29.3	29.3	29.3	0.0	0.0	0.0	0.7	0.7	0.7	1.0	1.0	1.0	1.7	1.7	1.7
1	Region 16	2.8	2.8	2.8	0.5	0.5	0.5	3.3	3.3	3.3	0.6	0.6	0.6	1.1	1.1	1.1	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 19	15.1	14.9	15.3	1.5	0.7	2.3	16.5	15.5	17.6	0.0	0.0	0.1	0.3	0.2	0.4	16.9	16.0	17.8	0.0	0.0	0.0	0.3	0.2	0.4	0.4	0.2	0.6	0.7	0.4	0.9
1	Region 27	11.4	11.4	11.4	2.7	2.7	2.7	14.1	14.1	14.1	0.0	0.0	0.0	0.6	0.6	0.6	14.7	14.7	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 28	7.7	7.7	7.7	2.8	2.8	2.8	10.5	10.5	10.5	0.6	0.6	0.6	0.3	0.3	0.3	11.4	11.4	11.4	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2
1	Region 29	15.9	15.9	15.9	1.4	1.4	1.4	17.3	17.3	17.3	0.1	0.1	0.1	1.6	1.6	1.6	19.0	19.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 32	19.7	19.7	19.7	1.2	1.2	1.2	21.0	21.0	21.0	0.0	0.0	0.0	0.8	0.8	0.8	21.7	21.7	21.7	0.0	0.0	0.0	0.1	0.1	0.1	0.9	0.9	0.9	1.0	1.0	1.0
2	Region 33	8.5	6.3	10.7	4.0	2.9	5.2	12.5	9.1	15.9	0.3	0.0	0.6	0.2	0.1	0.3	13.1	10.1	16.1	0.0	0.0	0.0	0.4	0.3	0.5	0.2	0.0	0.4	0.6	0.3	0.9
2	Region 34	7.2	6.0	8.3	3.3	1.0	5.7	10.5	7.1	14.0	0.0	0.0	0.0	4.1	0.7	7.5	14.6	14.6	14.6	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.0	0.5	0.4	0.0	0.7
12	**Mean WMB**	11.5			2.6			14.1			0.2			1.6			15.8			0.0			0.2			0.3			0.5		
	Min WMB		2.8			0.5			3.3			0.0			0.1			5.0			0.0			0.0			0.0			0.0	
	Max WMB			19.7			5.7			24.1			0.6			7.5			29.3			0.0			0.7			1.0			1.7
GRADE: COM																															
1	Region 13	4.0	4.0	4.0	4.3	4.3	4.3	8.3	8.3	8.3	0.0	0.0	0.0	0.2	0.2	0.2	8.5	8.5	8.5	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4
2	Region 14	15.1	3.8	26.5	2.7	0.5	4.8	17.8	4.3	31.3	0.1	0.0	0.3	0.0	0.0	0.0	17.9	4.3	31.5	0.0	0.0	0.0	0.2	0.0	0.5	0.1	0.0	0.3	0.4	0.3	0.5
1	Region 26	4.3	4.3	4.3	0.1	0.1	0.1	4.4	4.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.4	29.4	29.4	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 34	5.4	4.7	6.0	2.3	0.9	3.7	7.7	6.9	8.4	0.0	0.0	0.0	0.9	0.4	1.3	8.6	7.3	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.2
6	**Mean COM**	8.2			2.4			10.6			0.1			0.3			11.0			4.9			0.1			0.1			0.2		
	Min COM		3.8			0.1			4.3			0.0			0.0			4.3			0.0			0.0			0.0			0.0	
	Max COM			26.5			4.8			31.1			0.3			1.3			31.5			29.4			0.5			0.3			0.5
471	**Mean white maize**	5.0			1.4			6.4			0.0			0.3			6.7			0.1			0.1			0.1			0.2		
	Min white maize		0.7			0.0			0.9			0.0			0.0			0.9			0.0			0.0			0.0			0.0	
	Max white maize			26.5			6.7			31.3			0.6			7.5			31.5			29.4			1.3			4.2			4.3
900	**Mean maize**	5.6			1.6			7.2			0.1			0.3			7.6			0.8			0.0			0.1			0.1		
	Min maize		0.6			0.0			0.0			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max maize			26.5			17.2			31.3			0.9			7.5			31.5			42.4			1.3			4.2			4.3

TABLE 3: RSA GRADING OF YELLOW MAIZE (2001/2002)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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: YM1																														
8	Region 10	4.4	2.1	7.1	1.8	0.8	2.9	6.2	3.8	8.3	0.0	0.0	0.2	0.1	0.0	0.6	6.3	3.8	8.3	2.4	0.0	9.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2
5	Region 11	3.8	2.7	5.1	2.4	1.5	3.8	6.2	4.2	7.5	0.0	0.0	0.1	0.0	0.0	0.1	6.3	4.3	7.6	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Region 12	3.9	1.0	7.6	1.1	0.1	2.7	5.0	2.3	8.1	0.0	0.0	0.2	0.1	0.0	0.8	5.2	2.3	8.8	0.2	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2
6	Region 13	3.4	1.5	6.5	1.2	0.3	2.1	4.6	2.8	6.8	0.0	0.0	0.1	0.4	0.0	1.0	5.0	2.9	7.2	0.3	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	Region 14	3.6	0.7	5.8	0.6	0.0	2.3	4.2	0.7	6.4	0.0	0.0	0.2	0.2	0.0	1.2	4.5	0.7	7.1	0.9	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2
17	Region 15	3.3	1.2	6.6	1.2	0.6	2.2	4.5	2.3	7.7	0.0	0.0	0.2	0.1	0.0	0.7	4.7	2.3	8.1	1.3	0.0	6.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2
16	Region 16	4.5	2.0	7.8	1.6	0.5	2.9	6.1	3.1	9.0	0.1	0.0	0.2	0.6	0.0	1.9	6.7	4.2	9.0	0.8	0.0	3.9	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2
8	Region 17	5.5	3.8	6.8	1.0	0.5	1.7	6.5	5.4	8.3	0.0	0.0	0.2	0.2	0.0	0.6	6.7	5.7	8.4	0.3	0.0	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
4	Region 18	5.3	2.8	7.4	1.0	0.5	1.8	6.3	4.6	8.0	0.0	0.0	0.2	0.1	0.0	0.4	6.4	4.6	8.3	0.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Region 19	4.4	2.2	6.1	1.7	0.2	3.2	6.1	2.6	7.9	0.0	0.0	0.1	0.0	0.0	0.2	6.1	2.7	7.9	0.2	0.0	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
7	Region 20	5.2	2.5	7.1	1.0	0.5	1.3	6.2	3.0	8.1	0.0	0.0	0.2	0.2	0.0	0.5	6.4	3.0	8.5	0.4	0.0	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
3	Region 21	6.0	5.1	6.5	1.7	1.4	2.0	7.7	6.9	8.4	0.0	0.0	0.1	0.3	0.0	0.7	8.0	6.9	8.6	0.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Region 22	5.3	4.2	7.8	1.3	0.4	2.0	6.6	5.5	8.3	0.0	0.0	0.2	0.3	0.0	1.5	6.9	5.5	8.6	0.3	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Region 23	5.2	3.1	7.4	1.7	0.3	2.9	6.9	5.0	8.6	0.1	0.0	0.3	0.2	0.0	1.5	7.2	5.0	9.0	1.2	0.0	4.9	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5
20	Region 24	3.8	1.4	7.3	1.4	0.2	3.3	5.2	3.1	7.9	0.1	0.0	0.3	0.3	0.0	1.1	5.6	3.4	7.9	1.6	0.0	8.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
14	Region 25	4.8	2.0	6.9	1.9	0.4	3.9	6.7	3.4	8.3	0.0	0.0	0.2	0.1	0.0	0.6	6.9	3.5	8.6	0.8	0.0	4.1	0.0	0.0	0.0	0.1	0.0	0.4	0.1	0.0	0.4
6	Region 26	5.5	3.1	7.1	1.2	0.3	2.0	6.6	3.5	8.3	0.1	0.0	0.2	0.3	0.0	0.7	7.0	4.0	8.9	1.4	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 27	5.5	4.6	6.4	1.7	1.0	2.4	7.2	5.6	8.8	0.0	0.0	0.0	0.0	0.0	0.0	7.2	5.6	8.8	0.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Region 28	5.6	3.3	7.5	1.5	0.3	3.3	7.1	4.5	8.7	0.1	0.0	0.3	0.1	0.0	0.4	7.2	4.5	8.8	1.4	0.0	5.9	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.3
9	Region 29	5.7	4.0	7.6	1.1	0.7	2.3	6.8	4.9	9.0	0.0	0.0	0.1	0.0	0.0	0.0	6.8	5.0	9.0	1.9	0.0	4.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
8	Region 30	5.9	2.9	8.4	1.1	0.1	2.0	7.0	4.7	8.7	0.0	0.0	0.2	0.1	0.0	0.4	7.2	5.1	8.7	1.6	0.0	2.8	0.1	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.4
4	Region 31	5.1	3.5	6.5	0.8	0.7	0.9	5.9	4.4	7.3	0.0	0.0	0.0	0.1	0.0	0.2	6.0	4.5	7.3	3.4	1.0	7.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
5	Region 32	6.5	6.3	7.0	0.9	0.5	1.2	7.4	7.0	8.0	0.1	0.0	0.2	0.2	0.0	0.3	7.6	7.0	8.3	2.7	0.5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Region 33	4.4	1.9	6.6	0.9	0.3	1.7	5.3	2.3	6.8	0.1	0.0	0.2	0.3	0.0	0.5	5.6	2.9	6.9	2.5	0.0	5.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
8	Region 34	5.4	4.1	6.9	1.8	1.2	3.1	7.2	5.7	8.7	0.0	0.0	0.2	0.6	0.0	1.8	7.8	5.7	8.8	1.9	0.0	5.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
10	Region 35	4.3	0.6	7.1	1.4	0.6	3.9	5.7	1.3	9.0	0.0	0.0	0.1	0.0	0.0	0.2	5.7	1.3	9.0	2.0	0.0	6.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
5	Region 36	5.4	5.1	6.2	2.0	1.2	2.6	7.5	6.3	8.8	0.0	0.0	0.1	0.1	0.0	0.3	7.6	6.5	8.8	1.8	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
251	**Mean YM1**	4.7			1.4			6.0			0.0			0.2			6.3			1.2			0.0			0.0			0.0		
	Min YM1		0.6			0.0			0.7			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max YM1			8.4			3.9			9.0			0.3			1.9			9.0			9.1			0.5			0.4			0.5

TABLE 3: RSA GRADING OF YELLOW MAIZE (2001/2002) (continue)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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																														
1	Region 10	3.5	3.5	3.5	2.1	2.1	2.1	5.5	5.5	5.5	0.5	0.5	0.5	0.0	0.0	0.0	6.0	6.0	6.0	7.9	7.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 12	8.3	7.4	9.2	1.1	0.6	1.5	9.4	8.1	10.7	0.1	0.0	0.1	0.8	0.0	1.6	10.2	9.7	10.7	0.1	0.0	0.2	0.2	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.3
2	Region 13	7.8	6.9	8.6	2.0	1.4	2.6	9.8	9.5	10.1	0.1	0.0	0.3	0.4	0.3	0.4	10.3	9.9	10.6	0.8	0.0	1.6	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.2
1	Region 14	9.4	9.4	9.4	0.5	0.5	0.5	9.9	9.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	9.9	9.9	9.9	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 15	7.8	7.8	7.8	1.6	1.6	1.6	9.4	9.4	9.4	0.0	0.0	0.0	0.0	0.0	0.0	9.4	9.4	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Region 16	6.2	2.4	9.4	2.1	0.6	3.8	8.3	2.9	11.6	0.1	0.0	0.4	0.9	0.0	2.4	9.4	5.1	11.9	0.3	0.0	1.4	0.1	0.0	0.5	0.1	0.0	0.3	0.2	0.0	0.6
3	Region 17	11.6	7.5	16.1	2.4	1.7	3.4	14.0	9.2	19.5	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2	14.1	9.4	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Region 18	8.7	4.8	10.9	1.8	0.6	3.8	10.5	8.6	12.5	0.1	0.0	0.3	0.7	0.0	1.6	11.2	9.2	13.7	0.5	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Region 19	8.8	5.6	14.4	2.2	0.5	3.6	11.0	9.1	14.9	0.1	0.0	0.2	0.2	0.0	0.6	11.3	9.2	15.3	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2
1	Region 20	9.4	9.4	9.4	4.3	4.3	4.3	13.7	13.7	13.7	0.0	0.0	0.0	0.0	0.0	0.0	13.8	13.8	13.8	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Region 21	9.5	6.6	14.7	2.2	0.5	3.8	11.8	9.2	17.5	0.0	0.0	0.3	0.4	0.0	2.9	12.3	9.2	17.9	0.3	0.0	1.2	0.1	0.0	0.8	0.1	0.0	2.3	0.2	0.0	2.3
7	Region 22	8.7	3.5	14.7	2.8	0.5	4.3	11.5	6.0	19.0	0.1	0.0	0.2	0.7	0.0	2.9	12.2	9.2	19.1	0.2	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.3
5	Region 23	8.1	5.4	11.8	2.3	1.1	3.7	10.5	8.9	12.9	0.1	0.0	0.2	0.3	0.0	0.8	10.8	9.1	13.0	1.2	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Region 24	9.3	1.2	17.3	2.7	0.6	9.4	12.0	5.7	18.6	0.1	0.0	0.4	0.6	0.0	2.9	12.7	8.6	18.7	1.6	0.0	8.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
10	Region 25	7.2	2.8	13.3	3.3	0.8	9.9	10.5	3.7	16.5	0.1	0.0	0.4	0.7	0.0	3.9	11.3	7.6	17.2	0.5	0.0	2.0	0.0	0.0	0.0	0.2	0.0	0.8	0.2	0.0	0.8
10	Region 26	9.7	7.2	12.6	1.9	0.6	3.3	11.7	9.0	15.5	0.1	0.0	0.2	0.1	0.0	0.7	11.8	9.1	15.5	1.2	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Region 27	8.6	3.5	14.3	2.8	0.7	4.7	11.4	8.2	17.5	0.1	0.0	0.3	0.4	0.0	1.7	11.9	8.3	18.0	1.5	0.0	3.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
3	Region 28	5.9	3.1	8.4	2.8	1.7	4.3	8.7	7.4	10.0	0.1	0.0	0.2	0.1	0.0	0.4	8.9	7.4	10.2	1.4	0.7	2.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
7	Region 29	10.2	7.7	14.9	1.9	1.0	2.8	12.0	9.5	16.0	0.0	0.0	0.2	0.1	0.0	0.8	12.2	9.5	17.0	3.7	0.3	11.4	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.2
14	Region 30	8.1	5.4	13.6	2.5	0.4	5.1	10.6	6.4	18.7	0.1	0.0	0.5	0.3	0.0	1.6	11.0	6.8	18.7	2.5	0.0	9.3	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2
4	Region 31	8.7	7.7	9.9	1.9	1.7	2.0	10.6	9.6	11.9	0.1	0.0	0.2	1.3	0.0	3.0	11.9	9.6	13.8	2.7	0.0	5.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
5	Region 32	10.9	8.3	13.8	1.4	0.9	1.8	12.3	10.1	14.6	0.0	0.0	0.0	0.5	0.0	2.1	12.9	10.1	15.2	3.2	0.3	8.5	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.2
5	Region 33	6.9	4.7	8.9	3.4	1.4	7.3	10.3	7.8	12.0	0.0	0.0	0.0	0.5	0.0	2.5	10.9	9.4	12.0	1.4	0.2	4.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
10	Region 34	8.1	6.3	12.4	2.7	0.9	4.4	10.7	7.2	15.4	0.1	0.0	0.5	0.6	0.0	2.2	11.4	9.8	15.5	0.8	0.0	1.9	0.1	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.4
1	Region 35	7.8	7.8	7.8	2.4	2.4	2.4	10.2	10.2	10.2	0.0	0.0	0.0	0.0	0.0	0.0	10.2	10.2	10.2	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 36	9.1	8.7	9.5	0.6	0.5	0.7	9.7	9.2	10.2	0.0	0.0	0.0	1.5	0.5	2.4	11.2	10.8	11.6	2.1	1.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	**Mean YM2**	8.6			2.4			11.0			0.1			0.5			11.5			1.3			0.0			0.0			0.1		
	Min YM2		1.2			0.4			2.9			0.0			0.0			5.1			0.0			0.0			0.0			0.0	
	Max YM2			17.3			9.9			19.5			0.5			3.9			19.9			11.4			0.8			2.3			2.3

TABLE 3: RSA GRADING OF YELLOW MAIZE (2001/2002) (continue)

Number of samples	Region	% Defective Kernels						% Total defective			% Foreign matter			% Another Colour			% Total Deviation			% Pinked Kernels			% Diplodia Kernels			% Fusarium Kernels			% Cobrot Kernels		
		Above 6.35mm sieve			Below 6.35mm 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: YMB																													
1	Region 14	10.6	10.6	10.6	2.5	2.5	2.5	13.0	13.0	13.0	0.6	0.6	0.6	1.7	1.7	1.7	15.3	15.3	15.3	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2
1	Region 19	7.0	7.0	7.0	1.9	1.9	1.9	8.9	8.9	8.9	0.7	0.7	0.7	0.2	0.2	0.2	9.8	9.8	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 21	4.4	4.4	4.4	2.4	2.4	2.4	6.8	6.8	6.8	0.6	0.6	0.6	1.0	1.0	1.0	8.3	8.3	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 26	21.6	21.6	21.6	2.4	2.4	2.4	24.0	24.0	24.0	0.0	0.0	0.0	0.2	0.2	0.2	24.3	24.3	24.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 28	19.5	19.5	19.5	4.7	4.7	4.7	24.1	24.1	24.1	0.0	0.0	0.0	0.0	0.0	0.0	24.1	24.1	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Region 34	8.9	3.4	14.2	8.3	2.9	13.2	17.2	12.0	23.0	0.3	0.0	0.6	0.5	0.0	0.9	17.9	13.5	23.3	0.2	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
8	**Mean YMB**	11.2			4.8			16.1			0.3			0.6			17.0			0.1			0.0			0.0			0.0		
	Min YMB		3.4			1.9			6.8			0.0			0.0			8.3			0.0			0.0			0.0			0.0	
	Max YMB			21.6			13.2			24.1			0.7			1.7			24.3			0.5			0.2			0.0			0.2
	GRADE: COM																														
2	Region 10	4.8	4.0	5.6	2.2	2.1	2.3	3.9	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	7.0	6.0	7.9	12.5	12.5	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 16	13.5	13.5	13.5	1.9	1.9	1.9	15.4	15.4	15.4	0.9	0.9	0.9	0.0	0.0	0.0	16.2	16.2	16.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 19	5.3	5.3	5.3	2.8	2.8	2.8	8.1	8.1	8.1	0.0	0.0	0.0	0.2	0.2	0.2	8.3	8.3	8.3	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2
2	Region 20	6.2	6.0	6.4	1.3	0.8	1.8	7.5	7.2	7.8	0.0	0.0	0.0	3.2	0.0	6.3	10.7	7.8	13.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 22	15.1	15.1	15.1	4.4	4.4	4.4	19.4	19.4	19.4	0.0	0.0	0.0	0.0	0.0	0.0	19.4	19.4	19.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 27	2.1	2.1	2.1	17.2	17.2	17.2	19.4	19.4	19.4	0.5	0.5	0.5	0.0	0.0	0.0	19.9	19.9	19.9	31.9	31.9	31.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 30	6.6	4.9	8.4	2.0	0.8	3.1	8.6	5.7	11.5	0.0	0.0	0.0	0.2	0.0	0.3	8.8	6.0	11.5	27.5	12.6	42.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 33	13.6	7.4	19.8	1.7	1.1	2.2	15.3	9.6	20.9	0.0	0.0	0.0	0.1	0.0	0.2	15.4	9.6	21.2	24.9	23.3	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Region 34	10.3	8.4	12.2	4.4	1.1	7.7	14.7	13.3	16.1	0.0	0.0	0.0	0.1	0.0	0.2	14.9	13.4	16.3	6.9	0.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	Region 36	4.1	4.1	4.1	3.2	3.2	3.2	7.4	7.4	7.4	0.2	0.2	0.2	0.1	0.1	0.1	7.7	7.7	7.7	8.2	8.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	**Mean COM**	8.2			3.5			11.3			0.1			0.5			12.3			12.3			0.0			0.0			0.0		
	Min COM		2.1			0.8			0.0			0.0			0.0			6.0			0.0			0.0			0.0			0.0	
	Max COM			19.8			17.2			20.9			0.9			6.3			21.2			42.4			0.2			0.0			0.2
429	**Mean yellow maize**	6.3			1.9			8.2			0.1			0.3			8.6			1.6			0.0			0.0			0.0		
	Min yellow maize		0.6			0.0			0.0			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max yellow maize			21.6			17.2			24.1			0.9			6.3			24.3			42.4			0.8			2.3			2.3
900	**Mean maize**	5.6			1.6			7.2			0.1			0.3			7.6			0.8			0.0			0.1			0.1		
	Min maize		0.6			0.0			0.0			0.0			0.0			0.7			0.0			0.0			0.0			0.0	
	Max maize			26.5			17.2			31.3			0.9			7.5			31.5			42.4			1.3			4.2			4.3

TABLE 4: GRADING QUALITY OF SOUTH AFRICAN WHITE MAIZE 1992/93-2001/02

Season	Number of samples	RSA GRADING AVERAGES				
		% Defective kernels		%	%	%
		Above 6.35mm sieve	Below 6.35mm sieve	Foreign matter	Other colour	Total deviation
1992/93	165	4.4	2.8	0.1	0.5	7.8
1993/94	178	5.0	1.3	0.1	0.3	6.7
1994/95	164	5.1	1.9	0.0	0.5	7.5
1995/96	142	6.3	1.9	0.0	0.3	8.5
1996/97	178	4.7	1.5	0.0	0.5	6.7
1997/98	470	5.9	1.8	0.1	0.4	8.1
1998/99	256	3.4	2.0	0.1	0.2	5.6
1999/00	493	6.0	1.7	0.0	0.4	8.1
2000/01	522	3.6	1.5	0.1	0.3	5.5
2001/02	471	5.0	1.4	0.0	0.3	6.7
Mean white maize 1992-2001		4.9	1.8	0.1	0.4	7.1

TABLE 5: GRADING QUALITY OF SOUTH AFRICAN YELLOW MAIZE 1992/93-2001/02

Season	Number of samples	RSA GRADING AVERAGES				
		% Defective kernels		%	%	%
		Above 6.35mm sieve	Below 6.35mm sieve	Foreign matter	Other colour	Total deviation
1992/93	172	6.4	4.2	0.0	0.1	10.7
1993/94	183	6.4	2.0	0.0	0.3	8.7
1994/95	175	5.6	2.4	0.1	0.3	8.3
1995/96	151	6.8	2.4	0.1	0.2	9.5
1996/97	166	4.9	1.9	0.0	0.2	7.0
1997/98	267	6.0	2.4	0.1	0.4	8.9
1998/99	189	2.6	2.7	0.0	0.1	5.5
1999/00	407	6.5	2.1	0.0	0.2	8.8
2000/01	378	3.7	2.1	0.1	0.4	6.2
2001/02	429	6.3	1.9	0.1	0.3	8.6
Mean yellow maize 1992-2001		5.5	2.4	0.1	0.3	8.2

TABLE 6: GRADING QUALITY OF SOUTH AFRICAN MAIZE 1992/93-2001/02

Season	Number of samples	RSA GRADING AVERAGES				
		% Defective kernels		%	%	%
		Above 6.35mm sieve	Below 6.35mm sieve	Foreign matter	Other colour	Total deviation
1992/93	337	5.4	3.5	0.1	0.3	9.3
1993/94	361	5.7	1.7	0.1	0.3	7.7
1994/95	339	5.4	2.2	0.1	0.4	7.9
1995/96	293	6.6	2.2	0.1	0.2	9.0
1996/97	344	4.8	1.7	0.0	0.4	6.9
1997/98	737	5.9	2.0	0.1	0.4	8.4
1998/99	445	3.1	2.3	0.0	0.1	5.5
1999/00	900	6.2	1.8	0	0.3	8.4
2000/01	900	3.6	1.8	0.1	0.3	5.8
2001/02	900	5.6	1.6	0.1	0.3	7.6
Mean maize 1992-2001/02		5.2	2.1	0.1	0.3	7.7

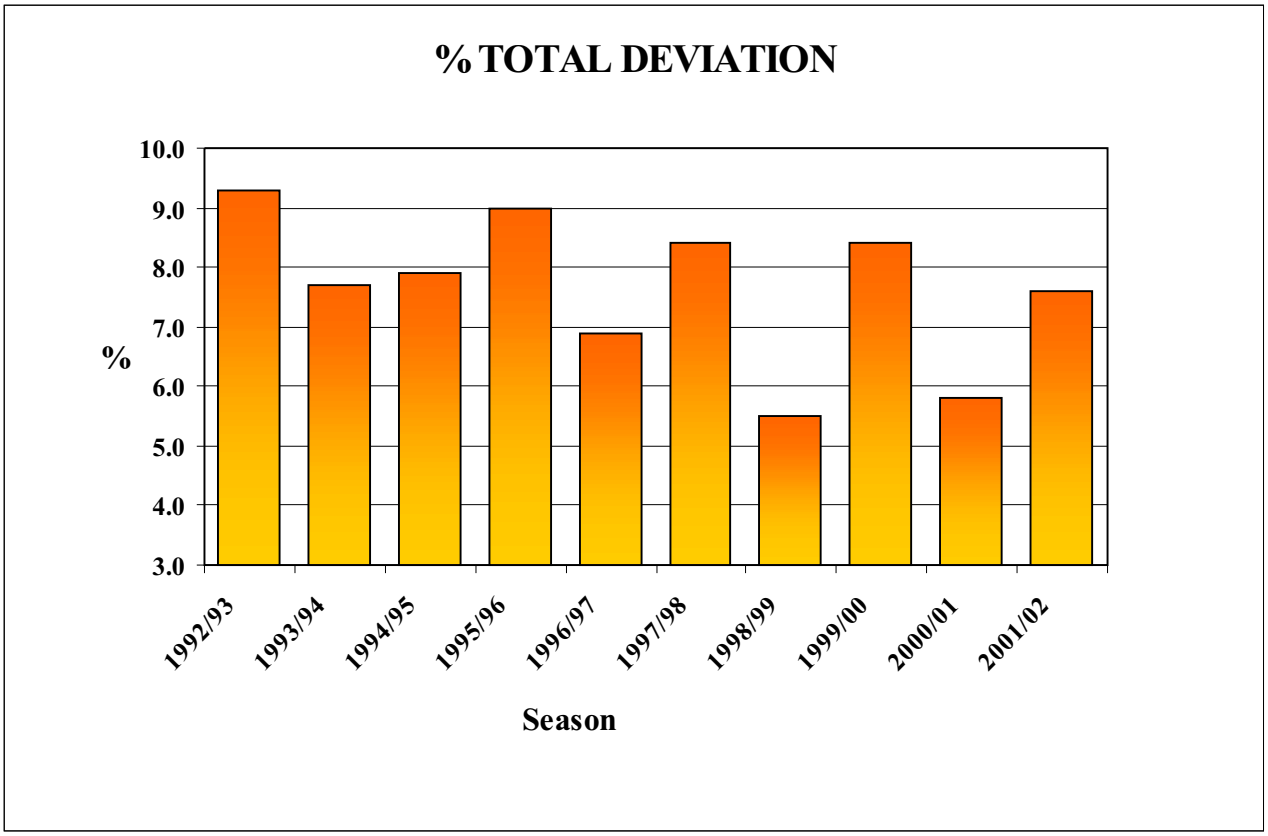


TABLE 7: USA GRADING OF WHITE MAIZE (2001/2002)

Number of samples	Region	Damaged kernels						% Broken corn and foreign material			Bushel weight kg/hl			Other colour %		
		% Heat damaged			% Total damaged											
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US1																
1	Region 10	0.0	0.0	0.0	1.6	1.6	1.6	0.1	0.1	0.1	78.1	78.1	78.1	0.0	0.0	0.0
2	Region 11	0.0	0.0	0.0	2.6	2.4	2.8	0.1	0.1	0.2	80.7	80.3	81.1	0.9	0.1	1.6
8	Region 12	0.0	0.0	0.0	2.4	1.6	2.9	0.1	0.0	0.3	77.2	76.3	78.8	0.1	0.0	0.4
5	Region 13	0.0	0.0	0.0	1.8	1.0	2.8	0.1	0.0	0.2	77.4	76.6	78.8	0.1	0.0	0.4
12	Region 14	0.0	0.0	0.0	2.0	0.9	2.9	0.1	0.0	0.5	77.1	75.5	79.2	0.1	0.0	0.3
12	Region 15	0.0	0.0	0.0	2.1	1.4	3.0	0.1	0.0	0.4	78.1	77.4	78.9	0.3	0.0	1.3
4	Region 16	0.0	0.0	0.0	1.7	0.0	2.9	0.3	0.0	0.7	77.5	77.2	77.8	0.3	0.0	1.1
3	Region 17	0.0	0.0	0.0	2.5	1.8	3.0	0.1	0.0	0.2	77.6	77.2	78.0	0.1	0.0	0.3
1	Region 18	0.0	0.0	0.0	2.8	2.8	2.8	0.7	0.7	0.7	78.0	78.0	78.0	0.4	0.4	0.4
5	Region 19	0.0	0.0	0.0	2.5	1.7	3.0	0.1	0.0	0.3	75.3	73.5	76.6	0.1	0.0	0.2
4	Region 20	0.0	0.0	0.0	2.7	2.4	2.8	0.2	0.0	0.5	77.0	76.2	78.0	0.4	0.2	1.0
3	Region 21	0.0	0.0	0.0	2.6	2.2	2.8	0.1	0.0	0.2	77.0	76.3	77.9	0.1	0.0	0.3
1	Region 22	0.0	0.0	0.0	3.0	3.0	3.0	0.1	0.1	0.1	78.1	78.1	78.1	0.0	0.0	0.0
3	Region 23	0.0	0.0	0.0	2.2	1.8	2.8	0.3	0.2	0.4	78.8	78.4	79.4	0.2	0.1	0.2
6	Region 24	0.0	0.0	0.0	2.2	1.2	3.0	0.2	0.1	0.4	77.3	76.3	78.5	0.2	0.1	0.3
5	Region 25	0.0	0.0	0.0	2.2	1.5	2.7	0.3	0.0	0.6	78.0	76.6	81.0	0.1	0.0	0.2
2	Region 27	0.0	0.0	0.0	2.6	2.2	3.0	0.5	0.4	0.6	77.7	77.4	78.0	0.3	0.1	0.4
4	Region 28	0.0	0.0	0.0	2.8	2.4	3.0	0.5	0.1	0.9	77.4	76.1	78.5	0.2	0.1	0.3
1	Region 29	0.0	0.0	0.0	2.8	2.8	2.8	0.2	0.2	0.2	79.0	79.0	79.0	0.1	0.1	0.1
2	Region 35	0.0	0.0	0.0	2.1	2.0	2.3	0.1	0.0	0.1	78.1	77.8	78.3	0.0	0.0	0.0
1	Region 36	0.0	0.0	0.0	2.9	2.9	2.9	0.5	0.5	0.5	75.7	75.7	75.7	0.0	0.0	0.0
85	**Mean US1**	0.0			2.3			0.2			77.5			0.2		
	Min US1		0.0			0.0			0.0			73.5			0.0	
	Max US1			0.0			3.0			0.9			81.1			1.6
GRADE: US2																
10	Region 12	0.0	0.0	0.0	3.7	2.4	4.7	0.3	0.0	0.6	77.0	71.7	78.8	0.1	0.0	0.8
2	Region 13	0.0	0.0	0.0	4.4	4.2	4.6	1.0	0.5	1.6	78.0	77.9	78.1	0.1	0.0	0.2
15	Region 14	0.0	0.0	0.0	4.0	3.1	5.0	0.3	0.0	2.2	77.1	72.2	79.4	0.0	0.0	0.2
9	Region 15	0.0	0.0	0.0	3.6	3.1	4.7	0.2	0.0	0.5	77.9	77.0	78.7	0.1	0.0	0.5
17	Region 16	0.0	0.0	0.0	3.7	1.8	4.6	0.2	0.0	0.4	77.0	71.1	79.7	0.2	0.0	0.6
4	Region 17	0.0	0.0	0.0	3.8	3.4	4.2	0.3	0.1	0.7	76.8	75.8	77.8	0.1	0.0	0.2
7	Region 18	0.0	0.0	0.0	3.8	3.3	4.8	0.2	0.0	0.4	77.3	76.2	79.4	0.4	0.0	0.9
3	Region 19	0.0	0.0	0.0	3.7	3.3	4.0	0.1	0.1	0.1	76.9	76.3	77.9	0.6	0.0	1.0
4	Region 20	0.0	0.0	0.0	3.7	3.3	3.9	0.2	0.0	0.3	77.3	77.0	77.6	0.1	0.0	0.2
5	Region 21	0.0	0.0	0.0	3.9	3.3	4.5	0.3	0.2	0.6	77.1	75.9	78.3	0.0	0.0	0.2
12	Region 22	0.0	0.0	0.0	4.1	3.5	4.8	0.2	0.0	0.7	78.7	77.0	80.1	0.1	0.0	0.6
17	Region 23	0.0	0.0	0.0	4.1	3.1	4.8	0.4	0.0	1.1	77.9	75.4	79.6	0.1	0.0	0.5
9	Region 24	0.0	0.0	0.0	4.0	3.1	4.7	0.5	0.0	2.4	78.6	77.2	79.6	0.1	0.0	0.6
6	Region 25	0.0	0.0	0.0	4.3	3.3	5.0	0.3	0.0	0.7	76.6	74.9	78.5	0.1	0.0	0.2
6	Region 26	0.0	0.0	0.0	4.1	3.6	4.8	0.1	0.0	0.3	77.4	75.9	78.4	0.1	0.0	0.4
4	Region 27	0.0	0.0	0.0	4.0	3.5	4.5	0.5	0.0	1.0	77.5	77.0	78.7	0.2	0.0	0.4
7	Region 28	0.0	0.0	0.0	4.2	3.3	4.9	0.4	0.1	1.3	77.5	76.3	80.1	0.3	0.0	0.4
2	Region 29	0.0	0.0	0.0	3.9	3.2	4.7	0.1	0.1	0.2	77.7	76.7	78.7	0.2	0.0	0.5
4	Region 30	0.0	0.0	0.0	4.1	3.6	4.7	0.1	0.0	0.2	78.4	77.2	79.0	0.0	0.0	0.1
2	Region 32	0.0	0.0	0.0	4.4	3.9	5.0	0.3	0.0	0.6	79.3	78.9	79.7	0.6	0.1	1.0
1	Region 33	0.0	0.0	0.0	3.4	3.4	3.4	0.1	0.1	0.1	77.2	77.2	77.2	0.4	0.4	0.4
11	Region 34	0.0	0.0	0.0	4.2	3.1	5.0	0.5	0.0	1.6	78.2	77.4	79.0	0.3	0.0	1.6
6	Region 35	0.0	0.0	0.0	4.0	2.9	4.6	0.2	0.0	0.5	75.0	69.5	78.9	0.0	0.0	0.2
2	Region 36	0.0	0.0	0.0	3.9	3.6	4.2	0.3	0.3	0.4	77.4	76.7	78.0	0.0	0.0	0.0
165	**Mean US2**	0.0			4.0			0.3			77.5			0.2		
	Min US2		0.0			1.8			0.0			69.5			0.0	
	Max US2			0.0			5.0			2.4			80.1			1.6

TABLE 7: USA GRADING OF WHITE MAIZE (2001/2002) (continue)

Number of samples	Region	Damaged kernels % Heat damaged			Damaged kernels % Total damaged			% Broken corn and foreign material			Bushel weight kg/hl			Other colour %		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US3																
2	Region 11	0.0	0.0	0.0	6.3	5.8	6.7	0.2	0.1	0.4	78.3	77.5	79.0	0.3	0.0	0.6
2	Region 13	0.0	0.0	0.0	5.7	5.4	6.0	0.4	0.2	0.5	77.5	77.4	77.6	0.7	0.2	1.1
1	Region 14	0.0	0.0	0.0	6.5	6.5	6.5	0.1	0.1	0.1	77.1	77.1	77.1	0.3	0.3	0.3
3	Region 16	0.0	0.0	0.0	5.3	5.1	5.6	0.1	0.0	0.2	76.9	76.6	77.5	0.3	0.2	0.6
2	Region 17	0.0	0.0	0.0	5.4	5.3	5.6	0.4	0.3	0.6	77.7	77.6	77.8	0.0	0.0	0.0
1	Region 18	0.0	0.0	0.0	5.1	5.1	5.1	0.1	0.1	0.1	76.5	76.5	76.5	0.1	0.1	0.1
1	Region 19	0.0	0.0	0.0	5.2	5.2	5.2	0.0	0.0	0.0	79.2	79.2	79.2	0.0	0.0	0.0
4	Region 20	0.0	0.0	0.0	6.1	5.6	6.5	0.2	0.1	0.3	76.9	75.0	77.8	0.1	0.0	0.4
8	Region 21	0.0	0.0	0.0	5.9	5.3	7.0	0.2	0.1	0.4	76.9	75.6	78.5	0.1	0.0	0.4
13	Region 22	0.0	0.0	0.0	6.1	5.1	7.0	0.4	0.1	1.3	77.7	75.0	79.6	0.1	0.0	0.3
12	Region 23	0.0	0.0	0.0	5.9	5.5	6.9	0.3	0.0	0.9	78.2	77.5	80.1	0.1	0.0	0.5
8	Region 24	0.0	0.0	0.0	5.9	5.2	6.7	0.4	0.1	1.0	77.5	75.9	78.3	0.0	0.0	0.2
9	Region 25	0.0	0.0	0.0	6.1	5.4	7.0	0.3	0.0	0.7	75.7	73.2	78.4	0.1	0.0	0.4
8	Region 26	0.0	0.0	0.0	6.3	5.6	6.9	0.5	0.1	1.2	76.9	74.0	79.7	0.4	0.0	1.1
2	Region 27	0.0	0.0	0.0	6.1	5.6	6.7	0.6	0.4	0.9	75.6	75.3	75.9	0.7	0.4	1.1
2	Region 28	0.0	0.0	0.0	5.4	5.2	5.6	0.0	0.0	0.0	76.6	75.9	77.2	0.2	0.0	0.4
4	Region 29	0.0	0.0	0.0	6.5	6.0	7.0	0.2	0.2	0.3	78.7	78.7	78.8	0.0	0.0	0.0
5	Region 30	0.0	0.0	0.0	5.6	5.2	6.2	0.2	0.1	0.3	77.1	75.4	78.4	0.1	0.0	0.2
5	Region 31	0.0	0.0	0.0	5.6	5.1	6.9	0.2	0.1	0.3	79.0	77.8	80.6	0.2	0.0	0.4
3	Region 32	0.0	0.0	0.0	5.7	5.3	6.3	0.2	0.0	0.4	78.4	78.0	78.9	0.2	0.0	0.5
6	Region 33	0.0	0.0	0.0	6.1	5.5	6.7	0.4	0.1	1.4	77.8	76.1	79.2	0.1	0.0	0.3
7	Region 34	0.0	0.0	0.0	6.0	5.2	6.7	0.5	0.1	1.2	76.5	70.3	78.4	0.5	0.0	1.5
4	Region 35	0.0	0.0	0.0	4.6	3.0	5.8	0.3	0.2	0.5	70.9	68.1	77.9	0.0	0.0	0.1
4	Region 36	0.0	0.0	0.0	5.6	5.2	6.1	0.2	0.1	0.3	75.5	73.1	77.5	0.1	0.0	0.4
116	**Mean US3**	0.0			5.9			0.3			77.1			0.2		
	Min US3		0.0			3.0			0.0			68.1			0.0	
	Max US3			0.0			7.0			1.4			80.6			1.5
GRADE: US4																
1	Region 10	0.0	0.0	0.0	8.5	8.5	8.5	0.2	0.2	0.2	75.0	75.0	75.0	0.0	0.0	0.0
1	Region 11	0.0	0.0	0.0	7.9	7.9	7.9	0.6	0.6	0.6	78.3	78.3	78.3	0.3	0.3	0.3
1	Region 13	0.0	0.0	0.0	7.5	7.5	7.5	0.2	0.2	0.2	75.4	75.4	75.4	0.8	0.8	0.8
1	Region 14	0.0	0.0	0.0	9.9	9.9	9.9	0.2	0.2	0.2	77.9	77.9	77.9	0.3	0.3	0.3
1	Region 16	0.0	0.0	0.0	9.0	9.0	9.0	0.3	0.3	0.3	75.7	75.7	75.7	0.4	0.4	0.4
2	Region 17	0.0	0.0	0.0	7.5	7.2	7.8	0.2	0.0	0.3	77.1	76.8	77.4	0.2	0.0	0.4
6	Region 18	0.0	0.0	0.0	8.2	7.1	9.1	0.3	0.1	0.7	77.3	76.3	77.9	0.2	0.0	0.3
2	Region 19	0.0	0.0	0.0	7.7	7.4	8.1	0.2	0.2	0.2	76.2	75.7	76.7	0.0	0.0	0.0
6	Region 21	0.0	0.0	0.0	7.7	7.2	8.8	0.4	0.1	0.7	77.1	76.6	77.8	0.1	0.0	0.3
5	Region 22	0.0	0.0	0.0	8.6	7.3	9.6	0.4	0.2	0.9	77.6	76.8	78.8	0.1	0.0	0.2
1	Region 23	0.0	0.0	0.0	8.5	8.5	8.5	0.7	0.7	0.7	77.5	77.5	77.5	0.0	0.0	0.0
3	Region 24	0.0	0.0	0.0	8.9	8.3	9.7	0.8	0.2	2.1	76.4	75.0	77.5	0.1	0.0	0.3
3	Region 25	0.0	0.0	0.0	9.1	7.9	9.8	0.3	0.1	0.4	74.2	71.4	77.1	0.4	0.0	1.1
2	Region 26	0.0	0.0	0.0	8.3	7.8	8.8	0.9	0.3	1.4	77.0	75.9	78.0	0.4	0.1	0.8
2	Region 27	0.0	0.0	0.0	8.1	7.3	8.9	0.1	0.0	0.2	76.8	75.9	77.6	0.2	0.0	0.4
5	Region 28	0.0	0.0	0.0	7.6	7.2	8.3	0.3	0.0	0.9	76.1	74.5	77.2	0.7	0.2	2.1
8	Region 29	0.0	0.0	0.0	8.5	7.3	9.9	0.3	0.1	0.6	78.5	77.9	79.0	0.1	0.0	0.3
11	Region 30	0.0	0.0	0.0	8.2	7.1	9.7	0.2	0.0	1.0	78.0	75.7	79.4	0.5	0.0	1.2
2	Region 31	0.0	0.0	0.0	8.6	7.5	9.8	0.1	0.1	0.2	78.4	77.9	78.8	0.3	0.1	0.5
3	Region 32	0.0	0.0	0.0	9.1	8.7	9.4	0.3	0.0	0.4	78.1	77.1	79.2	0.8	0.0	1.4
4	Region 33	0.0	0.0	0.0	7.9	7.1	9.4	0.3	0.0	0.5	76.9	74.7	78.5	0.4	0.0	1.2
7	Region 34	0.0	0.0	0.0	7.8	7.2	8.7	0.5	0.0	2.4	78.3	75.3	79.8	0.9	0.0	5.2
3	Region 35	0.0	0.0	0.0	8.6	7.3	9.6	0.1	0.0	0.2	74.1	73.6	74.4	0.0	0.0	0.1
1	Region 36	0.0	0.0	0.0	7.1	7.1	7.1	0.2	0.2	0.2	75.4	75.4	75.4	0.0	0.0	0.0

TABLE 7: USA GRADING OF WHITE MAIZE (2001/2002) (continue)

Number of samples	Region	Damaged kernels						%								
		% Heat damaged			% Total damaged			Broken corn and foreign material			Bushel weight kg/hl			Other colour %		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
81	**Mean US4**	0			8.2			0.3			77.2			0.3		
	Min US4		0			7.1			0			71.4			0	
	Max US4			0			9.9			2.4			79.8			5.2
	GRADE: US5															
1	Region 18	0.0	0.0	0.0	10.1	10.1	10.1	0.1	0.1	0.1	76.1	76.1	76.1	0.0	0.0	0.0
3	Region 21	0.0	0.0	0.0	11.1	10.9	11.3	0.2	0.1	0.4	77.1	76.3	77.8	0.1	0.0	0.2
1	Region 24	0.0	0.0	0.0	11.8	11.8	11.8	0.6	0.6	0.6	76.3	76.3	76.3	1.4	1.4	1.4
2	Region 27	0.0	0.0	0.0	10.9	10.2	11.6	0.3	0.1	0.6	76.2	75.6	76.8	0.6	0.6	0.7
2	Region 30	0.0	0.0	0.0	11.2	10.3	12.1	0.3	0.2	0.4	76.7	76.6	76.7	0.2	0.0	0.4
1	Region 31	0.0	0.0	0.0	10.1	10.1	10.1	0.2	0.2	0.2	77.9	77.9	77.9	0.9	0.9	0.9
2	Region 32	0.0	0.0	0.0	11.2	11.2	11.2	0.3	0.2	0.4	77.7	76.5	78.9	0.7	0.5	0.9
1	Region 33	0.0	0.0	0.0	12.0	12.0	12.0	1.5	1.5	1.5	74.4	74.4	74.4	0.1	0.1	0.1
13	**Mean US5**	0.0			11.1			0.4			76.7			0.4		
	Min US5		0.0			10.1			0.1			74.4			0.0	
	Max US5			0.0			12.1			1.5			78.9			1.4
	GRADE: SAMPLE GRADE															
2	Region 14	0.0	0.0	0.0	23.9	19.8	28.0	1.3	1.3	1.3	74.1	74.0	74.1	2.6	0.0	5.3
2	Region 19	0.0	0.0	0.0	15.6	15.5	15.7	0.6	0.2	0.9	76.2	73.0	79.4	0.3	0.2	0.4
1	Region 29	0.0	0.0	0.0	16.6	16.6	16.6	0.2	0.2	0.2	77.8	77.8	77.8	1.6	1.6	1.6
1	Region 32	0.0	0.0	0.0	20.0	20.0	20.0	0.2	0.2	0.2	75.0	75.0	75.0	0.8	0.8	0.8
6	**Mean Sample Grade**	0.0			19.3			0.7			75.6			1.4		
	Min Sample Grade		0.0			15.5			0.2			73.0			0.0	
	Max Sample Grade			0.0			28.0			1.3			79.4			5.3
	GRADE: MIXED GRADE															
1	Region 16	0.0	0.0	0.0	4.0	4.0	4.0	0.1	0.1	0.1	76.6	76.6	76.6	2.1	2.1	2.1
1	Region 19	0.0	0.0	0.0	2.4	2.4	2.4	0.3	0.3	0.3	78.5	78.5	78.5	4.8	4.8	4.8
1	Region 25	0.0	0.0	0.0	4.4	4.4	4.4	0.9	0.9	0.9	75.4	75.4	75.4	2.1	2.1	2.1
2	Region 34	0.0	0.0	0.0	5.4	4.7	6.1	0.3	0.1	0.4	78.5	78.1	78.8	5.1	2.7	7.5
5	**Mean Mixed Grade**	0.0			4.3			0.4			77.5			3.8		
	Min Mixed Grade		0.0			2.4			0.1			75.4			2.1	
	Max Mixed Grade			0.0			6.1			0.9			78.8			7.5
471	**Mean white maize**	0.0			5.3			0.3			77.3			0.3		
	Min white maize		0.0			0.0			0.0			68.1			0.0	
	Max white maize			0.0			28.0			2.4			81.1			7.5
900	**Mean maize**	0.0			6.0			0.3			77.0			0.3		
	Min maize		0.0			0.0			0.0			63.3			0.0	
	Max maize			0.0			28.0			4.2			81.1			7.5

TABLE 8: USA GRADING OF YELLOW MAIZE (2001/2002)

Number of samples	Region	Damaged kernels						%								
		% Heat damaged			% Total damaged			Broken corn and foreign material			Bushel weight kg/hl			Other colour %		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US1																
2	Region 11	0.0	0.0	0.0	2.9	2.9	2.9	0.4	0.1	0.6	78.7	78.1	79.3	0.1	0.1	0.1
5	Region 12	0.0	0.0	0.0	2.1	1.2	2.5	0.3	0.2	0.4	76.1	75.0	77.2	0.0	0.0	0.0
3	Region 13	0.0	0.0	0.0	2.3	1.8	3.0	0.2	0.1	0.2	77.5	77.0	78.1	0.3	0.0	0.5
9	Region 14	0.0	0.0	0.0	2.1	0.7	3.0	0.0	0.0	0.2	77.7	76.0	80.1	0.1	0.0	0.5
6	Region 15	0.0	0.0	0.0	2.1	1.4	2.7	0.2	0.1	0.4	76.8	76.5	77.2	0.1	0.0	0.3
5	Region 16	0.0	0.0	0.0	2.5	2.3	2.8	0.3	0.2	0.9	78.3	76.1	79.7	1.0	0.0	2.4
1	Region 18	0.0	0.0	0.0	3.0	3.0	3.0	0.2	0.2	0.2	75.9	75.9	75.9	0.0	0.0	0.0
1	Region 20	0.0	0.0	0.0	2.7	2.7	2.7	0.2	0.2	0.2	78.3	78.3	78.3	0.0	0.0	0.0
7	Region 24	0.0	0.0	0.0	2.2	1.6	2.8	0.4	0.1	0.5	77.8	75.8	79.7	0.2	0.0	1.1
3	Region 25	0.0	0.0	0.0	2.8	2.5	2.9	0.2	0.0	0.4	75.6	72.7	77.0	1.3	0.0	3.9
1	Region 27	0.0	0.0	0.0	2.8	2.8	2.8	1.6	1.6	1.6	76.2	76.2	76.2	0.0	0.0	0.0
1	Region 33	0.0	0.0	0.0	2.0	2.0	2.0	0.1	0.1	0.1	77.9	77.9	77.9	0.5	0.5	0.5
3	Region 35	0.0	0.0	0.0	0.9	0.7	1.1	0.1	0.0	0.2	78.5	78.1	78.8	0.1	0.0	0.2
47	**Mean US1**	0.0			2.2			0.2			77.4			0.3		
	Min US1		0.0			0.7			0.0			72.7			0.0	
	Max US1			0.0			3.0			1.6			80.1			3.9
GRADE: US2																
5	Region 10	0.0	0.0	0.0	4.3	3.6	4.9	0.4	0.1	0.8	76.7	76.3	77.2	0.1	0.0	0.6
1	Region 11	0.0	0.0	0.0	3.6	3.6	3.6	0.8	0.8	0.8	78.9	78.9	78.9	0.0	0.0	0.0
2	Region 12	0.0	0.0	0.0	3.5	3.5	3.5	0.0	0.0	0.0	78.3	78.1	78.4	0.0	0.0	0.0
2	Region 13	0.0	0.0	0.0	4.2	4.1	4.3	0.3	0.3	0.4	74.5	74.0	75.0	0.5	0.1	1.0
3	Region 14	0.0	0.0	0.0	4.4	4.1	4.6	0.3	0.1	0.5	76.5	75.6	78.0	0.1	0.0	0.3
7	Region 15	0.0	0.0	0.0	3.5	3.2	3.9	0.2	0.0	0.3	76.4	74.8	77.8	0.3	0.0	1.0
6	Region 16	0.0	0.0	0.0	4.0	3.3	4.9	0.4	0.0	1.0	77.8	76.6	78.9	1.4	0.1	2.5
2	Region 17	0.0	0.0	0.0	4.4	4.2	4.6	0.3	0.2	0.4	78.0	77.5	78.4	0.1	0.0	0.3
1	Region 18	0.0	0.0	0.0	4.2	4.2	4.2	0.2	0.2	0.2	76.1	76.1	76.1	0.0	0.0	0.0
3	Region 19	0.0	0.0	0.0	4.0	2.4	4.9	0.3	0.0	0.8	75.3	71.3	77.4	0.1	0.0	0.2
1	Region 20	0.0	0.0	0.0	3.6	3.6	3.6	0.3	0.3	0.3	77.2	77.2	77.2	0.5	0.5	0.5
1	Region 21	0.0	0.0	0.0	4.7	4.7	4.7	1.0	1.0	1.0	75.8	75.8	75.8	1.0	1.0	1.0
4	Region 22	0.0	0.0	0.0	4.6	3.9	5.0	0.5	0.2	0.8	78.3	77.4	79.0	0.7	0.0	2.9
6	Region 23	0.0	0.0	0.0	4.0	3.3	4.5	0.4	0.2	0.8	78.0	76.8	80.3	0.3	0.0	1.5
12	Region 24	0.0	0.0	0.0	4.2	3.1	5.0	0.3	0.1	1.5	78.2	75.7	80.6	0.5	0.0	2.9
7	Region 25	0.0	0.0	0.0	4.3	3.8	5.0	0.8	0.1	1.7	75.7	73.5	77.2	0.2	0.0	0.6
2	Region 26	0.0	0.0	0.0	3.9	3.1	4.6	0.1	0.1	0.2	80.0	79.6	80.3	0.4	0.2	0.7
2	Region 27	0.0	0.0	0.0	4.7	4.7	4.8	0.7	0.0	1.3	78.3	78.0	78.5	0.6	0.0	1.3
5	Region 28	0.0	0.0	0.0	4.2	3.6	4.7	0.5	0.2	1.0	77.2	74.1	78.4	1.0	0.0	4.1
3	Region 29	0.0	0.0	0.0	4.6	4.3	4.8	0.2	0.2	0.2	79.0	78.5	79.8	0.0	0.0	0.0
2	Region 30	0.0	0.0	0.0	4.1	3.3	4.9	0.2	0.1	0.2	78.0	76.2	79.8	0.3	0.3	0.4
2	Region 31	0.0	0.0	0.0	4.1	3.7	4.5	0.2	0.1	0.3	78.9	78.8	79.0	0.1	0.0	0.1
1	Region 33	0.0	0.0	0.0	3.8	3.8	3.8	0.7	0.7	0.7	78.1	78.1	78.1	0.5	0.5	0.5
1	Region 34	0.0	0.0	0.0	4.3	4.3	4.3	0.2	0.2	0.2	78.5	78.5	78.5	0.0	0.0	0.0
1	Region 36	0.0	0.0	0.0	4.5	4.5	4.5	0.9	0.9	0.9	76.3	76.3	76.3	0.1	0.1	0.1
82	**Mean US2**	0.0			4.1			0.4			77.4			0.4		
	Min US2		0.0			2.4			0.0			71.3			0.0	
	Max US2			0.0			5.0			1.7			80.6			4.1
GRADE: US3																
5	Region 10	0.0	0.0	0.0	4.5	2.2	5.8	0.2	0.0	0.5	72.9	67.5	76.7	0.1	0.0	0.2
2	Region 11	0.0	0.0	0.0	5.3	5.3	5.4	0.3	0.2	0.5	78.1	78.1	78.1	0.0	0.0	0.0
3	Region 12	0.0	0.0	0.0	5.5	5.1	6.4	0.2	0.0	0.4	77.8	76.5	78.8	0.1	0.0	0.2
1	Region 13	0.0	0.0	0.0	6.6	6.6	6.6	0.0	0.0	0.0	76.7	76.7	76.7	0.3	0.3	0.3
8	Region 14	0.0	0.0	0.0	5.5	5.2	5.8	0.1	0.0	0.2	76.9	75.6	77.5	0.3	0.0	1.2
3	Region 15	0.0	0.0	0.0	6.7	6.4	7.0	0.2	0.1	0.3	76.6	75.6	77.5	0.1	0.0	0.3
6	Region 16	0.0	0.0	0.0	6.3	5.8	7.0	0.5	0.1	1.8	77.3	76.1	79.4	0.2	0.0	0.6

TABLE 8: USA GRADING OF YELLOW MAIZE (2001/2002) (continue)

Number of samples	Region	Damaged kernels						%								
		% Heat damaged			% Total damaged			Broken corn and foreign material			Bushel weight kg/hl			Other colour %		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
GRADE: US3																
6	Region 17	0.0	0.0	0.0	6.1	5.1	7.0	0.1	0.0	0.2	77.0	75.7	78.1	0.2	0.0	0.6
1	Region 18	0.0	0.0	0.0	5.3	5.3	5.3	1.0	1.0	1.0	79.0	79.0	79.0	1.4	1.4	1.4
6	Region 19	0.0	0.0	0.0	5.9	5.1	7.0	0.4	0.0	0.8	75.7	71.6	77.2	0.1	0.0	0.6
4	Region 20	0.0	0.0	0.0	5.8	5.2	6.5	0.2	0.1	0.3	76.9	74.4	78.5	0.1	0.0	0.3
2	Region 21	0.0	0.0	0.0	5.9	5.2	6.7	0.4	0.3	0.5	76.5	75.9	77.1	0.3	0.0	0.7
5	Region 22	0.0	0.0	0.0	5.5	5.1	6.2	0.4	0.1	0.7	76.5	75.4	77.6	0.3	0.0	1.5
12	Region 23	0.0	0.0	0.0	6.0	5.1	7.0	0.4	0.1	0.8	77.1	75.9	79.4	0.1	0.0	0.4
3	Region 24	0.0	0.0	0.0	5.6	5.1	6.3	0.3	0.2	0.4	76.0	74.1	78.1	0.9	0.0	2.3
6	Region 25	0.0	0.0	0.0	6.4	5.6	6.9	0.3	0.0	0.8	75.0	72.2	77.2	0.1	0.0	0.3
3	Region 26	0.0	0.0	0.0	6.5	5.7	7.0	0.4	0.3	0.5	76.5	75.2	77.5	0.1	0.0	0.3
1	Region 27	0.0	0.0	0.0	6.5	6.5	6.5	1.0	1.0	1.0	74.8	74.8	74.8	0.1	0.1	0.1
10	Region 28	0.0	0.0	0.0	6.2	5.2	6.8	0.3	0.0	0.7	77.1	76.3	80.1	0.6	0.0	1.6
4	Region 29	0.0	0.0	0.0	6.0	5.2	6.9	0.2	0.1	0.4	79.1	77.4	80.2	0.0	0.0	0.0
7	Region 30	0.0	0.0	0.0	6.1	5.3	6.8	0.3	0.1	0.6	78.6	77.9	79.3	0.3	0.0	1.5
2	Region 31	0.0	0.0	0.0	6.3	6.0	6.7	0.1	0.1	0.1	78.9	78.0	79.7	0.1	0.0	0.2
4	Region 32	0.0	0.0	0.0	6.6	6.5	6.8	0.2	0.1	0.2	77.9	77.2	78.5	0.1	0.0	0.3
4	Region 33	0.0	0.0	0.0	6.1	5.6	6.6	0.6	0.1	1.8	76.9	75.7	77.9	0.6	0.0	2.5
7	Region 34	0.0	0.0	0.0	5.9	5.1	6.8	0.5	0.1	0.9	77.4	75.3	78.5	0.9	0.0	2.2
3	Region 35	0.0	0.0	0.0	5.3	5.0	5.6	0.5	0.1	0.9	73.9	67.8	77.4	0.1	0.0	0.2
5	Region 36	0.0	0.0	0.0	5.7	5.3	6.5	0.4	0.2	0.6	76.7	75.7	77.2	0.1	0.0	0.3
123	**Mean US3**	0.0			5.9			0.3			76.8			0.3		
	Min US3		0.0			2.2			0.0			67.5			0.0	
	Max US3			0.0			7.0			1.8			80.2			2.5
GRADE: US4																
1	Region 10	0.0	0.0	0.0	7.5	7.5	7.5	0.1	0.1	0.1	72.9	72.9	72.9	0.0	0.0	0.0
4	Region 12	0.0	0.0	0.0	8.2	7.6	9.6	0.1	0.1	0.2	76.3	75.9	76.7	0.7	0.0	1.6
2	Region 13	0.0	0.0	0.0	8.6	7.9	9.3	0.3	0.3	0.4	74.8	74.7	74.9	0.4	0.3	0.4
1	Region 14	0.0	0.0	0.0	9.6	9.6	9.6	0.2	0.2	0.2	76.6	76.6	76.6	0.0	0.0	0.0
1	Region 15	0.0	0.0	0.0	8.3	8.3	8.3	0.2	0.2	0.2	75.9	75.9	75.9	0.0	0.0	0.0
6	Region 16	0.0	0.0	0.0	8.2	7.2	9.7	0.4	0.1	0.7	76.7	74.7	79.0	0.3	0.0	1.2
1	Region 17	0.0	0.0	0.0	8.0	8.0	8.0	0.3	0.3	0.3	77.8	77.8	77.8	0.2	0.2	0.2
8	Region 18	0.0	0.0	0.0	8.4	7.1	9.8	0.3	0.1	0.5	76.9	74.9	78.0	0.5	0.0	1.6
2	Region 19	0.0	0.0	0.0	8.3	7.3	9.2	0.7	0.5	0.9	76.0	75.4	76.6	0.2	0.2	0.2
2	Region 20	0.0	0.0	0.0	7.4	7.4	7.4	0.1	0.1	0.2	80.0	79.9	80.1	0.2	0.0	0.4
12	Region 21	0.0	0.0	0.0	8.7	7.1	9.9	0.5	0.2	1.0	76.4	75.0	79.7	0.4	0.0	2.9
5	Region 22	0.0	0.0	0.0	7.8	7.1	8.7	0.4	0.0	1.1	76.9	76.2	77.6	0.4	0.0	1.1
4	Region 23	0.0	0.0	0.0	7.4	7.1	7.8	0.6	0.4	0.7	76.7	75.8	77.4	0.3	0.2	0.4
7	Region 24	0.0	0.0	0.0	8.7	7.4	10.0	0.4	0.1	1.3	77.1	75.9	78.8	0.4	0.0	1.2
5	Region 25	0.0	0.0	0.0	8.2	7.2	9.5	0.2	0.1	0.4	74.9	71.7	77.2	0.4	0.0	1.9
6	Region 26	0.0	0.0	0.0	8.2	7.2	9.7	0.4	0.2	0.7	78.0	76.6	79.7	0.3	0.0	0.7
4	Region 27	0.0	0.0	0.0	7.9	7.2	8.7	0.3	0.1	0.5	76.7	76.3	77.2	0.5	0.0	1.7
4	Region 28	0.0	0.0	0.0	7.9	7.5	8.8	0.1	0.0	0.3	76.0	74.8	76.6	0.1	0.0	0.3
6	Region 29	0.0	0.0	0.0	8.6	7.2	9.8	0.4	0.1	1.0	77.0	75.6	78.5	0.0	0.0	0.0
13	Region 30	0.0	0.0	0.0	8.1	7.1	9.0	0.5	0.1	2.3	76.5	71.4	78.4	0.1	0.0	0.3
3	Region 31	0.0	0.0	0.0	8.7	8.2	9.4	0.3	0.1	0.6	78.6	76.7	79.9	1.6	0.0	3.0
2	Region 32	0.0	0.0	0.0	8.2	7.3	9.1	0.3	0.2	0.4	77.5	77.0	77.9	0.1	0.0	0.3
4	Region 33	0.0	0.0	0.0	8.6	7.8	9.5	0.4	0.2	0.4	76.8	76.3	77.4	0.0	0.0	0.1
12	Region 34	0.0	0.0	0.0	8.1	3.8	9.8	1.1	0.1	4.2	77.0	74.9	79.0	0.5	0.0	2.1
5	Region 35	0.0	0.0	0.0	7.1	5.8	8.2	0.4	0.3	0.5	68.4	63.3	78.5	0.0	0.0	0.0
2	Region 36	0.0	0.0	0.0	9.2	8.8	9.6	0.1	0.1	0.1	72.9	72.6	73.2	1.5	0.5	2.4

TABLE 8: USA GRADING OF YELLOW MAIZE (2001/2002) (continue)

Number of samples	Region	Damaged kernels % Heat damaged ave.	Heat damaged min.	Heat damaged max.	Damaged kernels % Total damaged ave.	Total damaged min.	Total damaged max.	% Broken corn and foreign material ave.	Broken corn and foreign material min.	Broken corn and foreign material max.	Bushel weight kg/hl ave.	Bushel weight kg/hl min.	Bushel weight kg/hl max.	Other colour % ave.	Other colour % min.	Other colour % max.
122	**Mean US4**	0.0			8.2			0.4			76.3			0.3		
	Min US4		0.0			3.8			0.0			63.3			0.0	
	Max US4			0.0			10.0			4.2			80.1			3.0
	GRADE: US 5															
1	Region 14	0.0	0.0	0.0	11.5	11.5	11.5	0.8	0.8	0.8	76.7	76.7	76.7	1.7	1.7	1.7
1	Region 16	0.0	0.0	0.0	14.3	14.3	14.3	1.2	1.2	1.2	73.6	73.6	73.6	0.0	0.0	0.0
1	Region 17	0.0	0.0	0.0	11.3	11.3	11.3	0.4	0.4	0.4	75.7	75.7	75.7	0.0	0.0	0.0
3	Region 18	0.0	0.0	0.0	10.9	10.2	11.4	0.5	0.3	0.9	76.3	75.7	77.0	0.5	0.0	1.0
1	Region 19	0.0	0.0	0.0	14.7	14.7	14.7	0.2	0.2	0.2	77.6	77.6	77.6	0.2	0.2	0.2
1	Region 20	0.0	0.0	0.0	10.1	10.1	10.1	1.3	1.3	1.3	76.1	76.1	76.1	0.0	0.0	0.0
4	Region 21	0.0	0.0	0.0	11.5	10.2	12.8	0.4	0.2	0.8	75.1	74.3	75.6	0.3	0.2	0.4
1	Region 22	0.0	0.0	0.0	14.0	14.0	14.0	1.0	1.0	1.0	76.1	76.1	76.1	0.0	0.0	0.0
2	Region 23	0.0	0.0	0.0	11.2	10.5	11.9	0.5	0.3	0.8	76.1	74.8	77.4	0.4	0.0	0.8
4	Region 24	0.0	0.0	0.0	11.9	10.4	13.0	0.6	0.1	1.3	75.2	74.1	77.1	0.2	0.0	0.5
3	Region 25	0.0	0.0	0.0	11.8	10.6	14.2	1.0	0.3	2.5	74.1	71.4	78.9	0.1	0.0	0.2
5	Region 26	0.0	0.0	0.0	12.2	10.7	13.6	0.5	0.2	0.8	76.2	75.7	77.2	0.0	0.0	0.0
3	Region 27	0.0	0.0	0.0	10.7	10.2	11.5	0.6	0.5	0.7	76.2	74.8	77.2	0.4	0.0	0.8
2	Region 29	0.0	0.0	0.0	11.7	11.0	12.5	0.4	0.3	0.4	76.6	75.7	77.4	0.1	0.0	0.2
2	Region 30	0.0	0.0	0.0	13.8	13.0	14.7	0.6	0.2	0.9	77.1	77.0	77.2	0.8	0.0	1.6
1	Region 31	0.0	0.0	0.0	10.6	10.6	10.6	0.4	0.4	0.4	76.8	76.8	76.8	0.5	0.5	0.5
4	Region 32	0.0	0.0	0.0	11.9	10.2	13.9	0.3	0.2	0.5	77.3	75.7	78.4	0.7	0.0	2.1
2	Region 35	0.0	0.0	0.0	12.9	12.3	13.4	0.3	0.2	0.3	75.4	74.0	76.8	0.0	0.0	0.0
41	**Mean US5**	0.0			11.9			0.6			76.0			0.3		
	Min US5		0.0			10.1			0.1			71.4			0.0	
	Max US5			0.0			14.7			2.5			78.9			2.1
	GRADE: SAMPLE GRADE															
1	Region 17	0.0	0.0	0.0	17.9	17.9	17.9	0.5	0.5	0.5	67.6	67.6	67.6	0.0	0.0	0.0
1	Region 21	0.0	0.0	0.0	15.3	15.3	15.3	0.8	0.8	0.8	73.8	73.8	73.8	0.4	0.4	0.4
2	Region 22	0.0	0.0	0.0	15.8	15.4	16.2	1.4	1.3	1.6	75.8	75.7	75.8	0.1	0.0	0.1
2	Region 24	0.0	0.0	0.0	17.3	17.2	17.4	0.2	0.1	0.3	76.9	76.6	77.1	0.1	0.0	0.2
1	Region 26	0.0	0.0	0.0	22.6	22.6	22.6	0.2	0.2	0.2	69.9	69.9	69.9	0.2	0.2	0.2
1	Region 27	0.0	0.0	0.0	15.1	15.1	15.1	0.6	0.6	0.6	74.0	74.0	74.0	0.3	0.3	0.3
1	Region 28	0.0	0.0	0.0	20.5	20.5	20.5	1.4	1.4	1.4	75.3	75.3	75.3	0.0	0.0	0.0
1	Region 29	0.0	0.0	0.0	15.2	15.2	15.2	0.4	0.4	0.4	75.8	75.8	75.8	0.8	0.8	0.8
1	Region 33	0.0	0.0	0.0	20.2	20.2	20.2	0.1	0.1	0.1	74.8	74.8	74.8	0.2	0.2	0.2
1	Region 34	0.0	0.0	0.0	15.2	15.2	15.2	3.0	3.0	3.0	73.5	73.5	73.5	0.0	0.0	0.0
12	**Mean Sample Grade**	0.0			17.3			0.9			74.2			0.2		
	Min Sample Grade		0.0			15.1			0.1			67.6			0.0	
	Max Sample Grade			0.0			22.6			3.0			77.1			0.8
	GRADE: MIXED GRADE															
1	Region 15	0.0	0.0	0.0	1.7	1.7	1.7	0.2	0.2	0.2	76.6	76.6	76.6	6.3	6.3	6.3
1	Region 20	0.0	0.0	0.0	6.8	6.8	6.8	0.1	0.1	0.1	75.8	75.8	75.8	6.3	6.3	6.3
2	**Mean Mixed Grade**	0.0	0.0	0.0	4.3	1.7	6.8	0.2	0.1	0.2	76.2	75.8	76.6	6.3	6.3	6.3
429	**Mean yellow maize**	0.0			6.7			0.4			76.7			0.4		
	Min yellow maize		0.0			0.7			0			63.3			0	
	Max yellow maize			0.0			22.6			4.2			80.6			6.3
900	**Mean maize**	0.0			6.0			0.3			77.0			0.3		
	Min maize		0.0			0.0			0.0			63.3			0.0	
	Max maize			0.0			28.0			4.2			81.1			7.5

TABLE 9: GRADES AND GRADE REQUIREMENTS FOR MAIZE ACCORDING TO RSA GRADING REGULATIONS

Description of deviation		Maximum percentage of deviation allowed (m/m)					
		White maize			Yellow maize		
		Grade					
		WM1	WM2	WM3	YM1	YM2	YM3
I	Defective maize kernels	7	13	30	-	-	-
	above 6,35 grading sieve	-	-	-	9	20	30
	below 6,35 mm grading sieve	-	-	-	4	10	30
II	Maize kernels of another colour	3	6	10	2	5	5
III	Foreign matter (excluding stone, pieces of coal or glass and dung)	0,3	0,5	0,75	0,3	0,5	0,75
IV	Total deviations in terms I, II and III collectively, provided such deviations are individually within the limits specified above	8	16	30	9	20	30
V	Pinked maize kernels	12	12	12	12	12	12

If the maize does not comply with the standards for Class White Maize or Class Yellow Maize it shall be classified as Class Other Maize.

TABLE 10: GRADES AND GRADE REQUIREMENTS FOR MAIZE ACCORDING TO USDA GRADING REGULATIONS.

			Maximum limits of -		
			Damaged kernels		
Grade	Minimum test weight per bushel (pounds)		Heat damaged Kernels (percent)	Total (percent)	Broken corn and foreign material (percent)
U.S. No. 1	56.0	72.1 kg/hl	0.1	3.0	2.0
U.S. No. 2	54.0	69.5 kg/hl	0.2	5.0	3.0
U.S. No. 3	52.0	66.9 kg/hl	0.5	7.0	4.0
U.S. No. 4	49.0	63.1 kg/hl	1.0	10.0	5.0
U.S. No. 5	46.0	59.2 kg/hl	3.0	15.0	7.0

U.S. Sample grade

U.S. Sample grade is corn that:

a) Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4 or 5; or
b) Contains 8 or more stones which have an aggregate weight in excess of 0.20 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* ssp.), 2 or more castor beans (Ricinus communis L.), 4 or more particles of an unknown foreign substance(s) or a commonly reconized harmful or toxic substance(s), 8 or more cockleburs (Xanthium ssp.) or similar seeds singly or in combination, or animal filth in excess of 0.20 ssp.) or similar seeds singly or in combination, or animal filth in excess of 0.20 percent in 1000 grams; or
c) Has a musty, sour, or commercially foreign odor; or
d) Is heating or otherwise of distinctly low quality.

Source: Offical United States Standard of Grain (excluding metric conversions.)

TABLE 13: NUTRITIONAL VALUES OF WHITE AND YELLOW MAIZE 2001/2002

Number of samples	Region	% (db) Fat			% (db) Protein			% (db) Starch		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
	WHITE									
2	Region 10	3.6	3.5	3.6	9.2	9.0	9.3	72.6	72.4	72.8
5	Region 11	4.0	3.8	4.3	9.4	9.0	9.7	75.3	73.5	76.6
18	Region 12	4.1	3.5	4.7	9.0	8.0	10.4	74.5	70.2	76.1
10	Region 13	4.1	3.8	4.3	9.5	9.0	10.8	74.8	73.5	76.6
31	Region 14	4.2	3.7	4.5	8.9	7.6	9.7	75.4	73.4	78.0
21	Region 15	4.1	3.7	4.4	8.9	8.2	9.9	74.7	73.3	76.6
26	Region 16	4.1	3.5	4.6	9.2	8.6	10.4	75.1	73.5	77.4
11	Region 17	4.1	3.4	4.5	8.8	8.3	9.4	75.2	73.6	76.4
16	Region 18	4.1	3.2	4.8	8.7	8.1	9.4	75.5	73.2	77.3
14	Region 19	4.1	3.5	4.9	8.9	7.6	10.0	75.0	73.3	77.3
12	Region 20	4.1	3.5	4.7	8.7	7.8	11.0	75.2	73.4	76.7
25	Region 21	4.1	3.6	4.8	8.9	8.1	9.6	75.4	73.3	77.6
31	Region 22	4.3	3.8	4.8	9.2	8.1	9.9	76.2	74.5	78.2
33	Region 23	4.3	3.7	5.0	9.5	8.4	10.4	75.3	70.3	77.6
27	Region 24	4.2	3.3	4.9	9.0	7.3	10.2	75.5	69.0	77.5
24	Region 25	4.0	3.4	4.6	8.5	6.7	11.5	75.2	72.9	76.7
16	Region 26	4.3	4.0	4.8	8.7	7.3	9.6	75.8	74.7	77.6
12	Region 27	4.2	3.8	5.1	8.3	7.7	9.3	76.3	74.4	78.3
18	Region 28	4.2	3.6	4.5	8.5	7.4	9.4	75.3	72.1	77.3
16	Region 29	4.4	3.6	4.9	8.6	7.9	9.7	75.8	71.8	78.1
22	Region 30	4.2	3.7	4.8	8.6	7.2	10.0	75.7	71.6	77.7
8	Region 31	4.2	3.9	4.7	8.5	7.8	9.2	76.1	74.9	77.4
11	Region 32	4.4	4.0	4.7	9.1	8.6	9.7	75.6	74.9	76.9
12	Region 33	4.4	3.8	4.9	9.0	7.9	10.3	74.8	62.3	77.3
27	Region 34	4.3	3.6	5.0	8.9	7.8	10.6	75.5	72.8	77.7
15	Region 35	4.2	3.7	4.8	9.9	8.3	10.6	75.8	73.4	78.0
8	Region 36	3.7	3.4	4.1	8.1	7.7	9.0	73.4	71.9	75.6
471	**Mean white**	4.2			8.9			75.4		
	Min white		3.2			6.7			62.3	
	Max white			5.1			11.5			78.3
	YELLOW									
11	Region 10	3.3	3.0	3.7	7.8	7.2	8.8	74.7	73.2	76.2
5	Region 11	3.8	3.5	4.1	9.1	8.8	9.6	77.0	76.0	77.5
14	Region 12	4.2	3.8	4.6	9.0	7.9	10.3	75.3	73.1	77.1
8	Region 13	4.2	3.5	4.6	9.7	8.2	10.8	74.5	73.0	76.3
22	Region 14	4.3	3.9	4.7	8.8	7.8	9.8	75.8	73.6	77.4
18	Region 15	4.0	3.5	4.6	8.8	8.1	9.6	75.8	74.8	77.1
24	Region 16	4.0	3.0	4.8	9.1	8.3	10.6	75.4	73.1	78.2
11	Region 17	4.2	3.7	5.1	8.9	7.8	9.8	75.4	74.0	77.2
14	Region 18	4.2	3.9	4.7	8.9	8.4	9.7	76.0	74.8	77.5
12	Region 19	4.1	3.7	5.0	8.9	7.8	9.9	75.8	73.1	77.4
10	Region 20	3.9	3.3	4.4	8.7	8.1	9.9	74.8	73.3	76.7
20	Region 21	4.2	3.6	4.6	9.0	7.1	10.0	75.7	73.3	76.9
17	Region 22	4.4	3.7	5.1	9.6	8.9	10.7	76.0	74.7	77.6
24	Region 23	4.1	3.6	4.6	9.3	8.7	9.8	76.2	74.3	77.8
35	Region 24	4.3	3.2	5.3	8.9	7.3	11.6	75.9	70.8	77.8
24	Region 25	3.8	3.3	4.6	8.1	6.8	10.2	75.7	72.9	77.6
17	Region 26	4.3	3.9	4.8	8.8	8.0	10.1	75.6	73.5	76.6
12	Region 27	4.3	3.8	4.8	8.7	7.6	9.8	76.2	74.7	77.9
20	Region 28	4.2	3.1	4.8	8.6	7.2	9.3	75.4	73.0	77.6
16	Region 29	4.5	3.5	5.5	8.9	7.6	10.6	75.9	74.8	77.4

TABLE 13: NUTRITIONAL VALUES OF WHITE AND YELLOW MAIZE 2001/2002 (continue)

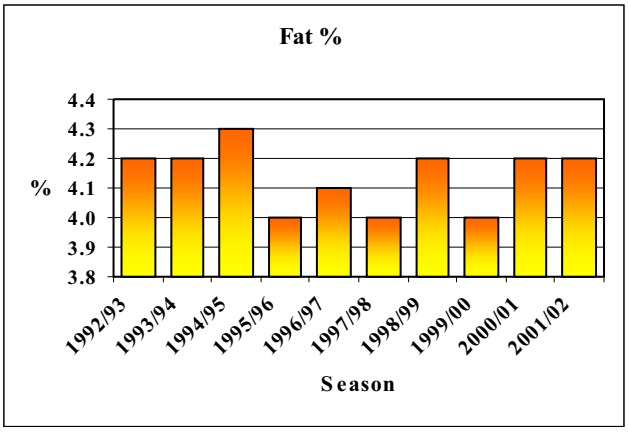
Number of samples	Region	% (db) Fat			% (db) Protein			% (db) Starch		
		ave.	min.	max.	ave.	min.	max.	ave.	min.	max.
	YELLOW									
24	Region 30	4.3	3.7	4.8	9	7.4	10	75.6	72.3	78.1
8	Region 31	4.4	4.2	4.7	8.7	8.1	9.1	76.2	75.2	77.4
20	Region 28	4.2	3.1	4.8	8.6	7.2	9.3	75.4	73.0	77.6
16	Region 29	4.5	3.5	5.5	8.9	7.6	10.6	75.9	74.8	77.4
24	Region 30	4.3	3.7	4.8	9.0	7.4	10.0	75.6	72.3	78.1
8	Region 31	4.4	4.2	4.7	8.7	8.1	9.1	76.2	75.2	77.4
10	Region 32	4.3	3.8	4.8	8.9	8.6	9.0	76.3	74.5	77.2
11	Region 33	4.0	3.5	4.5	8.6	7.8	10.1	76.6	75.1	77.6
23	Region 34	4.2	3.4	4.7	9.3	8.0	11.2	76.1	73.8	78.7
11	Region 35	3.9	3.5	4.4	8.8	7.6	10.2	75.4	70.2	76.9
8	Region 36	3.5	3.3	4.0	8.3	7.4	8.8	73.8	70.8	76.0
429	**Mean yellow**	4.1			8.9			75.7		
	Min yellow		3.0			6.8			70.2	
	Max yellow			5.5			11.6			78.7
	WHITE AND YELLOW									
13	Region 10	3.3	3.0	3.7	8.0	7.2	9.3	74.4	72.4	76.2
10	Region 11	3.9	3.5	4.3	9.3	8.8	9.7	76.2	73.5	77.5
32	Region 12	4.1	3.5	4.7	9.0	7.9	10.4	74.8	70.2	77.1
18	Region 13	4.1	3.5	4.6	9.6	8.2	10.8	74.7	73.0	76.6
53	Region 14	4.2	3.7	4.7	8.8	7.6	9.8	75.5	73.4	78.0
39	Region 15	4.1	3.5	4.6	8.9	8.1	9.9	75.2	73.3	77.1
50	Region 16	4.0	3.0	4.8	9.2	8.3	10.6	75.3	73.1	78.2
22	Region 17	4.1	3.4	5.1	8.9	7.8	9.8	75.3	73.6	77.2
30	Region 18	4.2	3.2	4.8	8.8	8.1	9.7	75.7	73.2	77.5
26	Region 19	4.1	3.5	5.0	8.9	7.6	10.0	75.4	73.1	77.4
22	Region 20	4.0	3.3	4.7	8.7	7.8	11.0	75.0	73.3	76.7
45	Region 21	4.1	3.6	4.8	9.0	7.1	10.0	75.5	73.3	77.6
48	Region 22	4.4	3.7	5.1	9.3	8.1	10.7	76.1	74.5	78.2
57	Region 23	4.2	3.6	5.0	9.4	8.4	10.4	75.7	70.3	77.8
62	Region 24	4.3	3.2	5.3	9.0	7.3	11.6	75.8	69.0	77.8
48	Region 25	3.9	3.3	4.6	8.3	6.7	11.5	75.5	72.9	77.6
33	Region 26	4.3	3.9	4.8	8.8	7.3	10.1	75.7	73.5	77.6
24	Region 27	4.3	3.8	5.1	8.5	7.6	9.8	76.2	74.4	78.3
38	Region 28	4.2	3.1	4.8	8.5	7.2	9.4	75.3	72.1	77.6
32	Region 29	4.5	3.5	5.5	8.7	7.6	10.6	75.8	71.8	78.1
46	Region 30	4.2	3.7	4.8	8.8	7.2	10.0	75.7	71.6	78.1
16	Region 31	4.3	3.9	4.7	8.6	7.8	9.2	76.2	74.9	77.4
21	Region 32	4.3	3.8	4.8	9.0	8.6	9.7	75.9	74.5	77.2
23	Region 33	4.2	3.5	4.9	8.8	7.8	10.3	75.6	62.3	77.6
50	Region 34	4.3	3.4	5.0	9.1	7.8	11.2	75.8	72.8	78.7
26	Region 35	4.1	3.5	4.8	9.5	7.6	10.6	75.7	70.2	78.0
16	Region 36	3.6	3.3	4.1	8.2	7.4	9.0	73.6	70.8	76.0
900	**Mean white & yellow**	4.2			8.9			75.5		
	Min white & yellow		3.0			6.7			62.3	
	Max white & yellow			5.5			11.6			78.7

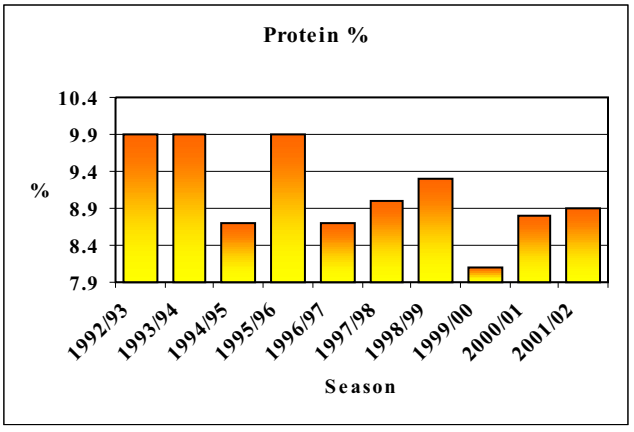
TABLE 14: MEAN NUTRITIONAL VALUES OF SOUTH AFRICAN MAIZE OVER THE PAST TEN MARKETING SEASONS (PERCENTAGE ON A DRY BASIS)

Season	White maize			Yellow maize		
	Fat	Protein	Starch	Fat	Protein	Starch
1992/93	4.1	10.0	71.6	4.3	9.8	71.3
1993/94	4.0	9.8	73.2	4.4	10.0	71.6
1994/95	4.1	8.6	74.5	4.4	8.8	73.8
1995/96	3.8	9.9	73.6	4.2	9.9	73.2
1996/97	3.9	8.7	74.1	4.2	8.7	71.8
1997/98	4.0	8.9	73.6	4.1	9.0	74.2
1998/99	4.1	9.2	71.8	4.2	9.5	72.1
1999/00	4.0	8.1	71.9	4.1	8.0	72.0
2000/01	4.2	8.8	74.2	4.2	8.7	74.5
2001/02	4.2	8.9	75.4	4.1	8.9	75.7
Mean	**4.0**	**9.1**	**73.4**	**4.2**	**9.1**	**73.0**

TABLE 15: MEAN NUTRITIONAL VALUES OF SOUTH AFRICAN MAIZE (1992/93-2001/02)

Season	Fat %	Protein %	Starch %
1992/93	4.2	9.9	71.5
1993/94	4.2	9.9	72.3
1994/95	4.3	8.7	74.2
1995/96	4.0	9.9	73.4
1996/97	4.1	8.7	73.1
1997/98	4.0	9.0	73.8
1998/99	4.2	9.3	71.9
1999/00	4.0	8.1	71.9
2000/01	4.2	8.8	74.3
2001/02	4.2	8.9	75.5





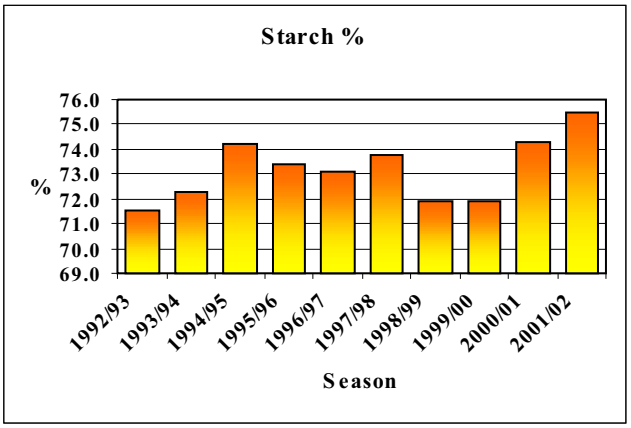


TABLE 19: HECTOLITRE MASS (kg/hl) OF SOUTH AFRICAN MAIZE 1992/93 - 2001/02

Season	White maize		Yellow maize		Mean maize	
	Number of samples	Hectolitre mass (kg/hl)	Number of samples	Hectolitre mass (kg/hl)	Number of samples	Hectolitre mass (kg/hl)
1992/93	165	76.5	172	74.9	337	75.7
1993/94	178	76.4	183	75.7	361	76.0
1994/95	164	74.7	175	74.9	339	74.8
1995/96	142	75.3	151	74.8	293	75.0
1996/97	178	75.2	166	75.2	344	75.2
1997/98	470	76.6	267	76.0	737	76.4
1998/99	256	75.2	189	74.8	445	75.0
1999/00	493	74.8	407	74.6	900	74.7
2000/01	522	78.2	378	77.8	900	78.0
2001/02	471	77.3	429	76.7	900	77.0

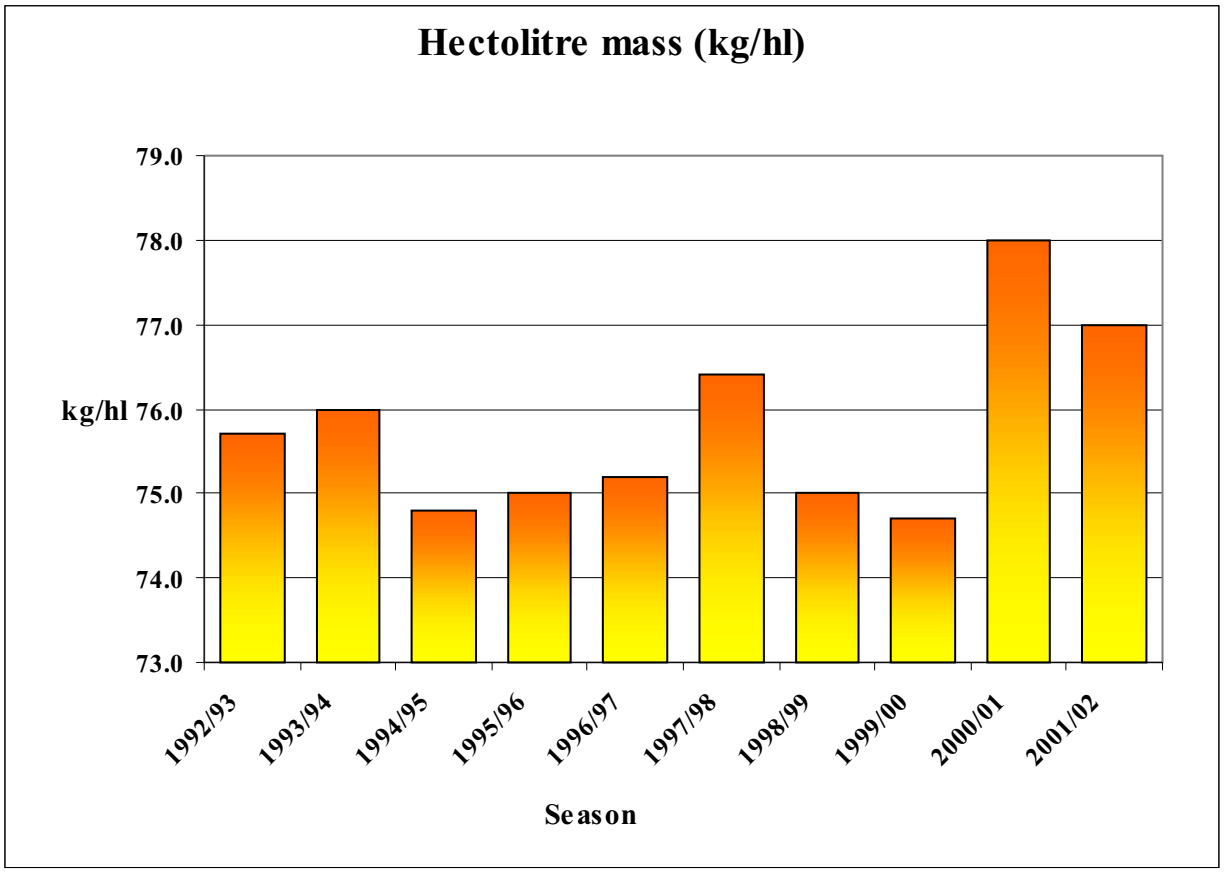


TABLE 23: MYCOTOXIN RESULTS 2001/2002

Region	Grade	Aflatoxin ppb	Fumonisin ppm	Deoxynivalenol ppm	Zearalenone ppm	T-2 ppm	Ochratoxin ppb
10	YM1	0	1.7	1.2	<0.1	0	<2.0
11	WM1	0	1.2	0.65	0.3	0	<2.0
12	WM1	0	0.62	0.91	0	0	<2.0
12	WM1	0	1.1	0.81	<0.1	0	<2.0
12	YM1	0	0.29	0	<0.1	0	<2.0
13	WM1	0	0.3	0.76	<0.1	0	<2.0
13	YM1	0	<0.25	1.2	0	0	<2.0
14	WM1	0	<0.25	0	0	0	0
14	WM2	0	2.4	<0.5	<0.1	0	<2.0
14	WM1	0	0.57	0.6	<0.1	0	<2.0
14	YM1	0	1.3	<0.5	<0.1	0	<2.0
14	YM1	0	0.29	0.73	<0.1	0	<2.0
15	WM1	0	<0.25	1.3	0	0	<2.0
15	WM1	0	2.2	0	<0.1	0	0
15	YM1	0	0.96	1.4	0	0	<2.0
15	YM1	0	0.36	0	0	0	<2.0
16	WM1	0	1.0	<0.5	<0.1	0	<2.0
16	WM1	0	0.42	<0.5	<0.1	0	<2.0
16	WM1	0	0.40	<0.5	0	0	<2.0
16	WM1	0	1.6	1.1	0	0	0
16	YM1	0	1.1	0.74	<0.1	0	0
16	YM2	0	2.7	0.70	<0.1	0	0
17	WM1	0	0.46	1.1	<0.1	0	0
17	YM1	0	0.48	0.89	0	0	<2.0
18	WM2	0	1.4	<0.5	<0.1	0	0
18	WM1	0	0.72	0.78	<0.1	0	<2.0
18	YM2	0	1.8	0.57	0	0	<2.0
18	YM1	0	0.27	<0.5	<0.1	0	<2.0
19	WM1	0	0.44	<0.5	<0.1	0	<2.0
19	YM1	0	0.93	<0.5	<0.1	0	<2.0
20	WM1	0	0.45	<0.5	<0.1	0	<2.0
20	YM1	0	0.79	0.66	<0.1	0	<2.0
21	WM1	0	<0.25	<0.5	0	0	<2.0
21	WM2	0	0.39	<0.5	<0.1	0	<2.0
21	YM1	0	0	0.61	<0.1	0	0
21	YM2	0	0.52	0	<0.1	0	<2.0
22	WM1	0	0.75	1.3	0	0	<2.0
22	WM2	0	1.7	0.77	<0.1	0	<2.0
22	WM2	0	1.0	<0.5	0	0	<2.0
22	YM1	0	5.1	0.66	<0.1	0	<2.0
22	YM2	0	0.71	<0.5	0	0	<2.0
23	WM1	0	1.1	0.61	0	0	<2.0
23	WM1	0	2.8	1.3	0	0	<2.0
23	WM1	0	0.81	1.2	0	0	<2.0
23	YM2	0	5.0	0.74	<0.1	0	<2.0
23	YM1	0	1.3	0.84	0	0	<2.0

TABLE 23: MYCOTOXIN RESULTS 2001/2002 (continue)

Region	Grade	Aflatoxin ppb	Fumonisin ppm	Deoxynivalenol ppm	Zearalenone ppm	T-2 ppm	Ochratoxin ppb
23	YM1	0	<0.25	<0.5	<0.1	0	<2.0
24	WM1	0	0.51	1.5	0	0	<2.0
24	WM1	0	0.6	0.66	0	0	<2.0
24	WM2	0	0.53	0.63	<0.1	0	0
24	YM1	0	<0.25	0.57	<0.1	0	<2.0
24	YM2	0	2.6	<0.5	<0.1	0	<2.0
24	YM1	0	0.26	<0.5	0	0	<2.0
25	YM 2	0	0.26	0	<0.1	0	<2.0
25	WM1	0	0.59	0	<0.1	0	2.1
25	WM2	0	0.35	0.85	<0.1	0	0
25	WM1	0	<0.25	<0.5	<0.1	0	<2.0
25	YM2	0	<0.25	<0.5	<0.1	0	<2.0
26	WM1	0	<0.25	0	<0.1	0	0
26	WM2	0	0.26	1.3	<0.1	0	0
26	YM1	0	0.74	0.6	<0.1	0	<2.0
27	WM2	0	<0.25	0.77	0	0	<2.0
27	YM2	0	0	1.1	0	0	<2.0
28	WM1	0	0.81	1.2	0	0	<2.0
28	WM2	0	0.32	<0.5	<0.1	0	<2.0
28	YM1	0	0.37	1.3	<0.1	0	<2.0
28	YM1	0	0.88	0.54	<0.1	0	0
29	WM1	0	0.6	0.7	<0.1	0	<2.0
29	WM2	0	0.32	<0.5	<0.1	0	<2.0
29	YM1	0	0.54	<0.5	0	0	<2.0
30	WM2	0	0	2.2	0.19	0	<2.0
30	WM1	0	0	0.79	<0.1	0	<2.0
30	WM2	0	0	0	<0.1	0	<2.0
30	YM1	0	<0.25	0.72	0	0	<2.0
30	YM2	0	1	1	<0.1	0	<2.0
31	WM1	0	0.29	<0.5	<0.1	0	0
31	YM1	0	0	0	<0.1	0	<2.0
32	WM1	0	0.49	2	<0.1	0	0
32	YM1	0	1.3	1	<0.1	0	<2.0
33	WM1	0	0.3	1.4	<0.1	0	<2.0
33	YM1	0	<0.25	1.5	0	0	<2.0
34	WM2	0	0	0.9	<0.1	0	<2.0
34	WM1	0	<0.25	0.79	0.3	0	0
34	WM1	0	0	<0.5	0	0	<2.0
34	YM2	0	1.4	<0.5	<0.1	0	0
34	YM1	0	0	0.61	<0.1	0	<2.0
35	WM1	0	<0.25	<0.5	<0.1	0	<2.0
35	YM1	0	1.8	<0.5	<0.1	0	0
36	WM1	0	0.53	<0.5	0	0	<2.0
36	YM1	0	0	0.6	<0.1	0	0
n=90	**Average**	**0**	**0.76**	**0.63**	**<0.1**	**0**	**<2.0**