

TABLE 7: PHYSICAL PARAMETERS & IMAGE ANALYSIS OF SORGHUM ACCORDING TO GRADE (2023/24)

Number of samples	Region	Test weight, kg/hl		1000 Kernel mass, g		Image Analysis Length (mm) Average		Image Analysis Length (mm) Std Dev		Width (mm) Average		Width (mm) Std Dev		Elongation (% Width/Length) Average		Elongation (% Width/Length) Std Dev		Volume/surface area (%) Average		Volume/surface area (%) Std Dev	
		ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.	ave.	max.
GRADE: GM1																					
1	Region 20	75.6	-	20.9	-	4.20	-	0.27	-	3.65	-	0.25	-	87	-	5.9	-	66	-	3.8	-
12	Region 35	78.6	72.2	24.7	20.3	4.50	4.33	0.34	0.30	3.65	3.72	0.26	0.21	81	79	5.5	4.6	69	66	4.6	3.9
13	Ave. GM1	78.4		24.4		4.48		0.33		3.65		0.26		82		5.5		69		4.5	
	Min. GM1	72.2		20.3		4.20		0.27		3.49		0.21		79		4.6		66		3.8	
	Max. GM1	81.9		26.7		4.59		0.37		3.72		0.32		87		6.1		71		5.1	
GRADE: GM2																					
4	Region 35	77.7	77.3	23.3	22.2	4.49	4.40	0.32	0.30	3.62	3.69	0.25	0.23	81	80	5.9	5.3	69	68	4.2	3.9
4	Ave. GM2	77.7		23.3		4.49		0.32		3.62		0.25		81		5.9		69		4.2	
	Min. GM2	77.3		22.2		4.40		0.30		3.56		0.23		80		5.3		68		3.9	
	Max. GM2	78.3		25.5		4.63		0.35		3.69		0.26		83		6.8		71		4.7	
GRADE: CO																					
3	Region 35	75.1	72.0	22.8	20.4	4.40	4.29	0.30	0.29	3.62	3.71	0.26	0.23	83	80	5.6	5.4	68	68	4.2	3.9
3	Ave. CO	75.1		22.8		4.40		0.30		3.62		0.26		83		5.6		68		4.2	
	Min. CO	72.0		20.4		4.29		0.29		3.55		0.23		80		5.4		68		3.9	
	Max. CO	78.5		24.6		4.46		0.32		3.71		0.30		87		5.8		69		4.8	
GRADE: GH1																					
1	Region 19	74.2	-	20.0	-	4.02	-	0.28	-	3.50	-	0.25	-	87	-	5.1	-	64	-	4.1	-
1	Region 21	76.2	-	18.6	-	4.11	-	0.31	-	3.60	-	0.24	-	88	-	5.7	-	65	-	4.2	-
1	Region 24	73.4	-	18.3	-	3.97	-	0.29	-	3.51	-	0.22	-	89	-	5.8	-	63	-	3.9	-
3	Ave. GH1	74.6		19.0		4.03		0.30		3.54		0.24		88		5.5		64		4.1	
	Min. GH1	73.4		18.3		3.97		0.28		3.50		0.22		87		5.1		63		3.9	
	Max. GH1	76.2		20.0		4.11		0.31		3.60		0.25		89		5.8		65		4.2	
GRADE: GH2																					
1	Region 19	75.3	-	18.8	-	4.05	-	0.32	-	3.47	-	0.27	-	86	-	5.9	-	64	-	4.5	-
1	Region 21	72.5	-	19.3	-	4.09	-	0.27	-	3.55	-	0.21	-	87	-	5.0	-	65	-	3.7	-
2	Ave. GH2	73.9		19.1		4.07		0.29		3.51		0.24		86		5.4		64		4.1	
	Min. GH2	72.5		18.8		4.05		0.27		3.47		0.21		86		5.0		64		3.7	
	Max. GH2	75.3		19.3		4.09		0.32		3.55		0.27		87		5.9		65		4.5	
25	Ave. Sorghum	77.0		22.9		4.38		0.32		3.62		0.25		83		5.6		68		4.4	
	Min. Sorghum	72.0		18.3		3.97		0.27		3.47		0.21		79		4.6		63		3.7	
	Max. Sorghum	81.9		26.7		4.63		0.37		3.72		0.32		89		6.8		71		5.1	