

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2009/2010)

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.						
GRADE: WM 1																									
1	Region 11	13.6	13.6	13.6	9.9	9.9	9.9	27.4	27.4	27.4	26.3	26.3	26.3	22.9	22.9	22.9	77.1	77.1	77.1	24.4	24.4	24.4	12.8	12.8	12.8
8	Region 12	13.2	11.5	14.2	9.5	8.7	10.1	28.3	26.4	29.3	26.4	24.3	29.7	22.7	18.8	25.6	77.3	74.4	81.2	28.5	25.9	30.2	25.4	20.6	27.9
6	Region 13	12.9	11.6	14.0	9.7	9.2	10.1	29.6	28.5	30.8	26.2	25.2	28.4	21.6	20.1	23.4	78.4	76.6	79.9	24.5	11.1	28.7	17.7	-4.4	26.0
11	Region 14	12.7	11.9	13.5	9.6	9.1	10.3	28.5	23.7	30.0	27.8	26.2	29.4	21.4	18.5	25.3	78.6	74.7	81.5	27.1	25.3	30.9	23.2	19.0	27.5
13	Region 15	12.6	11.9	13.6	9.8	9.1	10.3	27.0	21.6	30.0	28.6	26.7	31.3	22.0	19.2	26.1	78.0	73.9	80.8	29.0	24.4	33.1	23.6	18.0	27.7
18	Region 16	12.8	10.8	13.9	9.8	9.0	10.2	27.9	24.2	30.1	27.7	25.7	30.5	21.8	19.1	23.8	78.2	76.2	80.9	28.9	25.2	31.7	26.1	19.3	32.2
10	Region 17	13.3	12.2	15.1	9.8	8.9	10.9	28.6	26.9	31.0	26.1	25.0	27.4	22.3	20.2	26.6	77.7	73.4	79.8	27.5	22.8	31.0	21.5	16.8	26.6
8	Region 18	13.4	12.9	14.0	9.6	9.1	10.2	28.4	26.6	29.4	26.6	25.2	27.5	22.0	20.5	24.0	78.0	76.0	79.5	28.5	25.6	32.1	23.9	19.2	30.9
5	Region 19	13.3	12.2	14.4	10.2	9.2	11.3	29.1	28.2	31.0	25.3	24.0	27.2	22.1	20.9	23.2	77.9	76.8	79.1	29.8	25.8	34.3	25.5	23.0	30.3
5	Region 20	13.6	12.7	14.9	10.1	9.6	10.8	29.4	28.9	29.9	25.7	24.3	26.3	21.2	20.2	22.0	78.8	78.0	79.8	27.0	25.9	28.6	23.2	20.6	24.7
25	Region 21	13.5	11.1	15.7	9.8	8.9	10.7	28.2	25.5	30.3	26.9	23.4	30.9	21.7	17.4	26.0	78.3	74.0	82.6	26.6	23.1	32.1	20.8	12.9	30.6
6	Region 22	13.2	12.4	14.0	9.8	9.2	10.3	29.9	28.5	31.5	26.9	25.4	28.3	20.2	19.2	21.0	79.8	79.0	80.8	28.3	24.3	31.2	22.3	16.2	29.6
21	Region 23	12.8	11.0	14.7	9.6	7.4	12.4	29.1	26.8	31.9	27.6	24.7	29.9	20.9	18.3	23.6	79.1	76.4	81.7	28.3	23.3	34.1	24.7	15.5	32.7
20	Region 24	12.8	11.3	14.0	9.8	8.8	11.0	29.2	26.7	31.5	26.9	24.8	29.5	21.3	19.5	24.7	78.7	75.3	80.5	26.4	24.0	29.1	20.4	15.7	28.6
14	Region 25	15.1	12.6	19.1	10.6	9.5	16.4	26.8	21.0	30.1	24.6	20.0	26.6	22.9	20.1	27.8	77.1	72.2	79.9	28.4	24.2	34.5	23.0	14.4	27.7
12	Region 26	14.3	10.4	17.4	9.8	8.7	10.8	26.0	23.6	28.9	25.8	21.9	30.2	24.1	21.5	26.1	75.9	73.9	78.5	29.1	26.1	34.5	22.7	17.5	31.1
2	Region 27	14.4	13.6	15.1	10.5	10.5	10.5	26.9	25.3	28.4	25.9	24.9	27.0	22.3	22.1	22.5	77.7	77.5	77.9	28.7	28.3	29.0	20.3	20.1	20.4
25	Region 28	14.7	11.7	16.2	10.6	9.3	16.7	26.1	22.6	29.5	26.4	22.4	29.8	22.2	18.9	25.5	77.8	74.5	81.1	29.5	25.4	33.6	22.4	13.6	27.8
26	Region 29	14.3	10.3	16.9	9.8	8.6	10.5	26.1	22.8	28.7	25.9	22.1	30.5	23.9	21.1	28.7	76.1	71.3	78.9	30.4	23.0	37.0	25.4	18.6	31.5
14	Region 30	13.4	12.5	17.2	10.3	9.1	14.2	26.9	24.1	29.4	26.9	23.8	29.1	22.5	20.6	26.1	77.5	73.9	79.4	28.7	23.7	32.5	20.2	15.3	23.4
5	Region 31	12.6	10.9	13.8	9.5	8.8	10.1	28.4	27.3	29.6	27.1	25.8	28.9	22.4	20.5	25.1	77.6	74.9	79.5	25.6	20.6	28.2	21.1	15.0	26.9
17	Region 32	13.2	11.7	15.2	10.0	9.0	11.9	27.7	24.5	30.1	26.2	24.5	27.7	22.9	20.8	26.4	77.1	73.6	79.2	29.5	24.6	38.5	23.7	17.6	30.2
3	Region 33	13.5	12.8	14.3	9.8	9.7	10.1	30.1	29.3	31.3	25.9	24.7	26.9	20.7	19.9	21.9	79.3	78.1	80.1	26.8	24.4	28.3	18.9	15.0	21.4
10	Region 34	13.8	12.9	14.8	9.8	9.0	10.2	28.5	26.6	30.1	26.1	25.3	27.2	21.8	20.3	23.9	78.2	76.1	79.7	29.0	26.2	32.6	23.3	18.3	28.2
7	Region 35	13.1	12.7	14.4	10.2	9.5	10.7	25.7	21.5	28.1	28.6	26.6	29.7	22.4	19.1	26.9	77.6	73.1	80.9	33.1	29.6	36.7	23.5	18.5	27.5
15	Region 36	11.8	10.6	13.4	9.0	8.5	9.7	27.9	25.0	29.6	28.3	26.2	30.4	23.0	19.9	27.1	77.0	72.9	80.1	26.8	20.7	30.6	25.4	20.8	28.8
307	Ave WM 1	13.4			9.9			27.8			26.8			22.2			77.8			28.4			23.0		
	Min WM 1	10.3			7.4			21.0			20.0			17.4			71.3			11.1			-4.4		
	Max WM 1	19.1			16.7			31.9			31.3			28.7			82.6			38.5			32.7		

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2009/2010)
(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: WM 2																									
1	Region 11	10.1	10.1	10.1	10.5	10.5	10.5	27.0	27.0	27.0	33.9	33.9	33.9	18.5	18.5	18.5	81.5	81.5	81.5	22.3	22.3	22.3	15.6	15.6	15.6
1	Region 12	12.9	12.9	12.9	9.7	9.7	9.7	29.4	29.4	29.4	26.8	26.8	26.8	21.1	21.1	21.1	78.9	78.9	78.9	28.7	28.7	28.7	21.3	21.3	21.3
2	Region 13	14.1	13.4	14.8	9.8	9.8	9.9	29.8	29.8	29.8	24.6	24.5	24.8	21.6	21.1	22.1	78.4	77.9	78.9	28.7	28.5	28.8	24.2	21.6	26.8
7	Region 14	12.6	11.0	13.6	9.7	8.9	10.4	28.5	24.9	29.9	26.9	24.6	29.3	22.3	20.3	24.2	77.7	75.8	79.7	28.8	22.6	31.7	26.8	15.9	35.4
6	Region 15	12.5	11.9	13.6	9.9	9.3	10.5	29.2	27.0	36.2	26.9	14.8	31.0	21.5	17.6	27.2	78.5	72.8	82.4	29.2	26.1	32.9	22.0	18.7	24.8
4	Region 16	12.8	12.3	13.3	9.7	9.7	9.9	28.2	26.3	30.7	28.2	26.7	29.4	21.2	18.3	23.5	78.8	76.5	81.7	27.6	26.4	29.0	24.3	23.5	25.9
3	Region 17	13.4	13.2	13.7	9.8	9.6	10.2	29.1	28.3	29.7	26.6	25.0	27.4	21.1	20.0	21.9	78.9	78.1	80.0	28.6	24.9	30.6	24.7	20.4	28.7
4	Region 18	13.8	13.3	14.7	9.8	9.6	10.0	29.6	28.7	30.3	26.1	23.8	27.6	20.6	19.0	21.3	79.4	78.7	81.0	25.5	23.8	28.9	21.9	14.9	26.8
4	Region 19	13.3	13.0	13.6	9.5	9.1	9.8	29.2	28.4	30.2	26.0	25.3	26.7	21.9	20.7	23.3	78.1	76.7	79.3	27.1	24.2	30.1	23.6	20.5	25.6
3	Region 20	13.9	13.4	14.2	9.7	9.4	9.8	28.9	28.4	29.6	24.8	23.7	25.5	22.7	22.4	22.9	77.3	77.1	77.6	25.8	21.6	28.9	18.8	16.1	20.9
3	Region 21	12.8	12.2	13.6	9.8	9.7	9.8	28.5	27.5	29.3	28.1	26.0	31.1	20.9	19.1	21.8	79.1	78.2	80.9	28.4	26.6	31.4	26.1	21.6	28.8
4	Region 22	12.4	11.6	13.9	9.8	9.2	10.1	29.9	28.5	31.6	26.1	23.1	28.5	21.7	21.5	22.3	78.3	77.7	78.5	30.3	27.0	34.2	25.3	20.2	30.4
9	Region 23	13.5	11.5	17.3	10.2	9.5	11.0	29.4	27.3	31.7	26.6	20.6	29.7	20.4	18.2	24.1	79.6	75.9	81.8	27.5	25.9	29.9	25.0	17.6	31.8
11	Region 24	13.5	12.6	16.1	9.6	9.2	9.9	30.1	27.2	31.6	25.6	23.2	27.4	21.2	19.3	24.5	78.8	75.5	80.7	26.4	24.1	30.1	19.2	15.2	28.8
8	Region 25	14.7	12.8	17.8	10.0	9.0	11.1	26.7	24.5	29.0	24.8	20.9	26.9	23.7	17.5	27.0	76.3	73.0	82.5	22.9	-3.0	34.9	18.2	-7.5	28.5
5	Region 26	14.1	13.4	15.0	9.9	8.9	10.6	26.4	25.5	28.0	25.3	24.4	26.9	24.2	21.6	26.6	75.8	73.4	78.4	27.2	22.9	32.6	24.2	22.4	29.4
4	Region 27	15.0	12.5	17.6	9.7	7.5	10.7	26.7	24.5	29.4	27.0	23.7	30.4	21.5	20.8	22.6	78.5	77.4	79.2	26.9	25.7	28.0	20.8	18.0	23.6
11	Region 28	15.0	13.4	18.6	10.3	9.5	11.2	26.1	22.9	29.1	26.2	24.3	27.7	22.4	20.0	25.8	77.6	74.2	80.1	25.6	20.9	31.9	18.0	11.5	21.3
6	Region 29	13.6	12.0	15.2	9.9	9.5	10.3	26.2	24.7	27.5	26.4	24.7	27.5	23.9	22.2	25.5	76.1	74.5	77.8	28.0	26.1	30.2	22.2	17.4	25.5
4	Region 30	13.9	12.3	15.3	9.6	9.2	10.1	29.1	27.6	30.6	25.1	24.3	25.9	22.2	19.8	24.0	77.8	76.0	80.2	25.4	17.3	30.5	15.9	9.3	19.9
9	Region 31	13.2	11.6	15.1	9.7	8.8	10.2	29.1	27.7	30.2	25.8	24.1	28.3	22.2	20.4	24.2	77.8	75.8	79.6	23.5	16.4	27.4	19.3	14.5	24.9
8	Region 32	13.4	12.8	14.0	9.9	9.4	10.8	28.0	27.1	29.0	26.2	25.2	27.2	22.6	20.5	25.2	77.4	74.8	79.5	27.2	24.0	29.9	21.1	13.1	25.7
1	Region 33	13.6	13.6	13.6	9.5	9.5	9.5	27.4	27.4	27.4	26.1	26.1	26.1	23.5	23.5	23.5	76.5	76.5	76.5	26.9	26.9	26.9	22.1	22.1	22.1
6	Region 34	13.7	12.4	15.5	9.8	9.0	11.4	28.3	27.5	30.0	25.8	25.2	27.0	22.4	17.9	24.4	77.6	75.6	82.1	25.9	23.8	27.6	18.9	11.9	23.7
1	Region 35	11.4	11.4	11.4	9.6	9.6	9.6	27.6	27.6	27.6	30.1	30.1	30.1	21.2	21.2	21.2	78.8	78.8	78.8	34.9	34.9	34.9	25.5	25.5	25.5
1	Region 36	13.1	13.1	13.1	9.6	9.6	9.6	26.8	26.8	26.8	26.2	26.2	26.2	24.2	24.2	24.2	75.8	75.8	75.8	26.5	26.5	26.5	26.8	26.8	26.8
126	Ave WM 2	13.6	10.1	18.6	9.9	7.5	11.4	28.3	22.9	36.2	26.2	14.8	33.9	22.1	17.5	27.2	77.9	72.8	82.5	26.7	-3.0	34.9	21.5	-7.5	35.4
	Min WM 2																								
	Max WM 2																								

TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE (2009/2010)

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: WHITE																									
2	Region 11	11.8	10.1	13.6	10.2	9.9	10.5	27.2	27.0	27.4	30.1	26.3	33.9	20.7	18.5	22.9	79.3	77.1	81.5	23.4	22.3	24.4	14.2	12.8	15.6
11	Region 12	13.4	11.5	14.5	9.6	8.7	10.1	28.6	26.4	30.5	26.2	24.3	29.7	22.2	18.8	25.6	77.8	74.4	81.2	27.4	20.9	30.2	23.2	14.0	27.9
9	Region 13	13.4	11.6	15.0	9.8	9.2	10.3	29.4	27.2	30.8	25.7	24.5	28.4	21.7	20.1	23.4	78.3	76.6	79.9	26.2	11.1	30.9	20.5	-4.4	29.3
18	Region 14	12.7	11.0	13.6	9.6	8.9	10.4	28.5	23.7	30.0	27.5	24.6	29.4	21.7	18.5	25.3	78.3	74.7	81.5	27.7	22.6	31.7	24.6	15.9	35.4
19	Region 15	12.6	11.9	13.6	9.8	9.1	10.5	27.7	21.6	36.2	28.1	14.8	31.3	21.8	17.6	27.2	78.2	72.8	82.4	29.1	24.4	33.1	23.1	18.0	27.7
22	Region 16	12.8	10.8	13.9	9.8	9.0	10.2	27.9	24.2	30.7	27.8	25.7	30.5	21.7	18.3	23.8	78.3	76.2	81.7	28.6	25.2	31.7	25.8	19.3	32.2
14	Region 17	13.4	12.2	15.1	9.8	8.9	10.9	28.9	26.9	31.5	26.0	24.3	27.4	21.9	20.0	26.6	78.1	73.4	80.0	27.3	21.1	31.0	21.8	15.8	28.7
14	Region 18	13.5	12.0	14.7	9.6	9.1	10.2	28.9	26.6	30.3	26.5	23.8	27.6	21.5	19.0	24.0	78.5	76.0	81.0	27.2	22.2	32.1	22.9	14.9	30.9
10	Region 19	13.3	12.2	14.4	9.8	9.1	11.3	29.2	28.2	31.0	25.6	24.0	27.2	22.0	20.7	23.3	78.0	76.7	79.3	28.8	24.2	34.3	24.3	20.5	30.3
10	Region 20	13.8	12.7	14.9	9.9	9.2	10.8	29.2	28.2	29.9	25.2	23.4	26.3	22.0	20.2	25.1	78.0	74.9	79.8	25.2	17.3	28.9	20.6	13.3	24.7
29	Region 21	13.4	11.1	15.7	9.8	8.9	10.7	28.2	25.5	30.3	27.0	23.4	31.1	21.5	17.4	26.0	78.5	74.0	82.6	26.7	23.1	32.1	21.4	12.9	30.6
10	Region 22	12.9	11.6	14.0	9.8	9.2	10.3	29.9	28.5	31.6	26.6	23.1	28.5	20.8	19.2	22.3	79.2	77.7	80.8	29.1	24.3	34.2	23.5	16.2	30.4
34	Region 23	13.1	11.0	17.3	9.8	7.4	12.4	29.0	25.8	31.9	27.2	20.6	29.9	21.0	18.2	24.2	79.0	75.8	81.8	28.1	23.3	34.1	24.7	15.5	32.7
32	Region 24	13.1	11.3	16.1	9.7	8.8	11.0	29.5	26.7	31.6	26.4	23.2	29.5	21.3	19.3	24.7	78.7	75.3	80.7	26.3	24.0	30.1	19.8	14.8	28.8
23	Region 25	15.0	12.6	19.1	10.6	9.0	16.4	26.6	21.0	30.1	24.6	20.0	26.9	23.2	17.5	27.8	76.8	72.2	82.5	25.5	-3.0	34.9	20.2	-7.5	28.5
19	Region 26	14.3	10.4	17.4	9.8	8.7	10.8	26.3	23.6	28.9	25.6	21.9	30.2	24.0	21.5	26.6	76.0	73.4	78.5	27.9	19.8	34.5	22.6	10.5	31.1
6	Region 27	14.8	12.5	17.6	10.0	7.5	10.7	26.8	24.5	29.4	26.7	23.7	30.4	21.8	20.8	22.6	78.2	77.4	79.2	27.5	25.7	29.0	20.6	18.0	23.6
40	Region 28	14.7	11.7	18.6	10.5	9.3	16.7	26.2	22.6	29.5	26.4	22.4	29.8	22.2	18.9	25.8	77.8	74.2	81.1	28.0	20.9	33.6	21.3	11.5	27.8
33	Region 29	14.1	10.3	16.9	9.8	8.6	10.5	26.2	22.8	28.7	26.1	22.1	30.5	23.8	20.8	28.7	76.2	71.3	79.2	29.8	23.0	37.0	24.7	17.4	31.5
18	Region 30	13.5	12.3	17.2	10.2	9.1	14.2	27.4	24.1	30.6	26.5	23.8	29.1	22.4	19.8	26.1	77.6	73.9	80.2	28.0	17.3	32.5	19.3	9.3	23.4
14	Region 31	13.0	10.9	15.1	9.6	8.8	10.2	28.8	27.3	30.2	26.3	24.1	28.9	22.3	20.4	25.1	77.7	74.9	79.6	24.3	16.4	28.2	19.9	14.5	26.9
26	Region 32	13.2	11.5	15.2	10.0	9.0	11.9	27.8	24.5	30.1	26.3	24.5	29.0	22.8	20.5	26.4	77.2	73.6	79.5	28.8	24.0	38.5	22.7	13.1	30.2
5	Region 33	13.3	12.6	14.3	9.6	9.0	10.1	28.7	25.8	31.3	25.8	24.7	26.9	22.5	19.9	27.1	77.5	72.9	80.1	22.8	6.8	28.3	16.8	5.0	22.1
16	Region 34	13.8	12.4	15.5	9.8	9.0	11.4	28.4	26.6	30.1	26.0	25.2	27.2	22.0	17.9	24.4	78.0	75.6	82.1	27.8	23.8	32.6	21.7	11.9	28.2
8	Region 35	12.9	11.4	14.4	10.1	9.5	10.7	25.9	21.5	28.1	28.8	26.6	30.1	22.3	19.1	26.9	77.7	73.1	80.9	33.4	29.6	36.7	23.8	18.5	27.5
16	Region 36	11.9	10.6	13.4	9.0	8.5	9.7	27.9	25.0	29.6	28.2	26.2	30.4	23.0	19.9	27.1	77.0	72.9	80.1	26.8	20.7	30.6	25.5	20.8	28.8
458	Ave white	13.5			9.9			27.9			26.6			22.2			77.8			27.7			22.4		
	Min white	10.1			7.4			21.0			14.8			17.4			71.3			-3.0			-7.5		
	Max white	19.1			16.7			36.2			33.9			28.7			82.6			38.5			35.4		