

**TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2008/2009)**

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.
<b>GRADE: WM 1</b>																									
1	Region 11	13.8	13.8	13.8	9.5	9.5	9.5	30.2	30.2	30.2	25.9	25.9	25.9	20.7	20.7	20.7	79.3	79.3	79.3	26.3	26.3	26.3	16.2	16.2	16.2
13	Region 12	14.0	11.5	18.3	9.5	9.0	10.3	28.3	25.6	30.8	27.3	23.7	29.9	21.2	17.6	25.5	78.8	74.5	82.4	31.5	27.9	36.5	22.7	18.3	25.5
16	Region 13	14.3	12.7	16.0	9.9	8.2	10.7	28.6	27.1	29.5	25.7	23.4	28.1	21.5	18.8	23.0	78.5	77.0	81.2	31.0	27.0	35.7	20.5	14.7	23.8
35	Region 14	13.2	12.2	14.5	9.8	8.8	11.1	28.8	25.5	31.8	27.0	25.1	29.6	21.0	17.3	23.9	79.0	76.1	82.7	31.8	24.2	36.9	21.7	15.7	26.5
23	Region 15	12.8	11.7	14.0	9.6	8.8	11.6	28.7	26.9	30.1	27.6	25.5	29.1	21.3	19.3	24.3	78.7	75.7	80.7	32.3	28.6	36.9	22.6	17.4	29.0
38	Region 16	13.9	11.4	15.9	10.3	9.3	13.4	29.5	24.6	31.8	26.0	23.1	29.0	20.3	15.1	23.0	79.7	77.0	84.9	29.9	25.1	35.1	22.0	15.9	29.0
31	Region 17	14.2	11.3	16.8	10.4	9.2	11.6	29.3	27.3	31.0	25.1	21.8	28.2	21.0	17.0	25.0	79.0	75.0	83.0	29.5	22.8	34.8	20.7	10.8	26.5
10	Region 18	13.2	11.8	14.2	9.9	8.9	10.5	28.4	26.0	32.8	26.8	24.5	29.3	21.8	18.6	24.7	78.2	75.3	81.4	27.9	22.3	31.2	20.1	13.0	29.3
6	Region 19	13.5	12.5	15.0	9.7	9.1	10.6	28.7	28.1	29.9	26.0	24.2	27.0	22.1	21.0	23.2	77.9	76.8	79.0	27.1	24.1	31.8	18.4	15.5	21.7
15	Region 20	14.4	11.6	16.6	10.4	9.3	12.0	28.8	27.3	30.6	25.4	22.4	27.6	21.0	18.7	23.6	79.0	76.4	81.3	29.3	24.6	36.0	19.3	14.8	23.6
24	Region 21	14.2	12.0	15.5	10.0	7.1	11.4	28.3	25.0	31.3	26.9	23.8	29.6	20.6	17.4	23.7	79.4	76.3	82.6	27.6	19.7	35.4	20.2	12.7	35.0
19	Region 22	14.0	13.0	15.6	9.9	7.3	10.6	27.8	25.1	32.1	27.9	24.4	29.7	20.4	17.8	23.1	79.6	76.9	82.2	28.6	23.8	31.4	20.9	11.5	25.3
27	Region 23	14.1	12.9	16.6	10.1	9.4	11.2	27.8	24.8	31.2	27.8	24.6	30.1	20.2	17.1	22.5	79.8	77.5	82.9	30.5	24.2	36.1	21.1	15.7	27.1
16	Region 24	13.7	11.5	15.8	9.9	9.1	10.8	27.1	23.4	32.2	27.7	23.8	31.4	21.7	16.6	30.0	78.3	70.0	83.4	28.8	20.5	36.0	18.5	12.3	25.8
11	Region 25	16.1	12.4	20.7	9.6	7.1	11.6	26.4	22.9	31.2	24.7	20.8	27.2	23.2	18.1	26.3	76.8	73.7	81.9	28.4	22.4	32.5	18.2	11.7	24.4
17	Region 26	15.1	13.5	17.3	10.0	9.0	11.3	27.4	24.6	30.8	25.6	21.9	28.2	21.9	17.0	24.2	78.1	75.8	83.0	30.8	17.7	37.5	21.1	10.7	26.6
6	Region 27	14.4	13.7	14.8	9.9	9.3	10.6	27.4	26.0	28.3	26.0	24.7	28.4	22.2	20.8	23.7	77.8	76.3	79.2	30.1	24.2	34.5	19.2	13.4	22.1
22	Region 28	15.2	13.5	17.4	10.0	8.2	11.5	27.5	25.4	29.0	24.9	23.4	27.0	22.4	20.6	23.8	77.6	76.2	79.4	31.3	24.1	34.9	21.2	16.7	25.4
28	Region 29	14.1	10.9	16.9	9.7	9.0	11.3	27.3	24.8	29.4	26.8	23.4	29.3	22.1	19.0	24.5	77.9	75.5	81.0	30.5	23.8	36.1	22.0	12.6	29.5
18	Region 30	14.0	12.3	16.4	10.2	8.0	13.2	28.3	22.7	32.3	25.6	23.3	30.2	22.0	18.6	25.4	78.0	74.6	81.4	29.8	18.8	38.1	20.1	12.4	25.9
12	Region 31	13.4	11.3	15.4	9.7	8.8	10.5	28.6	24.8	30.2	27.1	23.0	30.3	21.3	19.5	25.8	78.7	74.2	80.5	25.7	19.8	35.6	18.2	12.0	25.1
18	Region 32	13.9	10.3	17.1	9.7	8.0	11.6	27.3	24.7	31.0	26.7	23.3	29.6	22.4	18.1	25.2	77.6	74.8	81.9	29.7	22.1	33.8	20.9	13.7	23.8
1	Region 33	15.8	15.8	15.8	10.1	10.1	10.1	27.8	27.8	27.8	24.4	24.4	24.4	21.9	21.9	21.9	78.1	78.1	78.1	27.2	27.2	27.2	25.5	25.5	25.5
10	Region 34	14.6	12.7	16.7	10.1	9.3	11.4	28.2	26.0	29.7	25.1	22.7	26.9	21.9	20.1	24.6	78.1	75.4	79.9	28.4	26.1	30.6	19.8	17.6	22.3
9	Region 35	13.2	10.8	15.4	9.5	8.8	10.6	27.8	27.1	29.3	27.1	24.9	30.2	22.3	20.4	23.3	77.7	76.7	79.6	31.3	28.0	37.2	20.7	17.1	23.2
14	Region 36	12.9	11.0	14.2	9.5	9.0	10.8	28.9	27.2	30.6	26.5	24.5	28.2	22.2	17.5	24.4	77.8	75.6	82.5	26.8	23.2	31.7	17.6	14.9	20.1
440	Ave WM 1	14.0			9.9			28.2			26.4			21.4			78.6			29.8			20.7		
	Min WM 1	10.3			7.1			22.7			20.8			15.1			70.0			17.7			10.7		
	Max WM 1	20.7			13.4			32.8			31.4			30.0			84.9			38.1			35.0		

**TABLE 16: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2008/2009)**  
(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.
<b>GRADE: WM 2</b>																									
2	Region 12	15.1	14.6	15.5	10.0	9.8	10.1	27.9	27.5	28.4	27.8	26.4	29.1	19.3	17.8	20.7	80.7	79.3	82.2	31.2	28.9	33.5	19.7	17.7	21.8
1	Region 13	13.3	13.3	13.3	10.9	10.9	10.9	28.9	28.9	28.9	25.7	25.7	25.7	21.1	21.1	21.1	78.9	78.9	78.9	33.9	33.9	33.9	21.3	21.3	21.3
1	Region 14	12.8	12.8	12.8	10.1	10.1	10.1	28.7	28.7	28.7	27.9	27.9	27.9	20.5	20.5	20.5	79.5	79.5	79.5	35.9	35.9	35.9	22.8	22.8	22.8
2	Region 15	13.0	12.4	13.6	9.7	9.7	9.8	29.0	28.4	29.5	27.8	27.4	28.3	20.4	19.8	21.1	79.6	78.9	80.2	30.1	28.5	31.7	21.3	19.5	23.1
2	Region 16	14.0	13.4	14.5	10.1	9.8	10.3	29.8	29.5	30.2	25.8	25.2	26.3	20.4	19.8	20.9	79.6	79.1	80.2	30.6	27.9	33.2	31.1	29.1	33.0
2	Region 17	14.2	13.6	14.8	10.8	10.2	11.3	30.0	28.6	31.4	25.4	24.8	25.9	19.7	18.8	20.6	80.3	79.4	81.2	28.2	28.1	28.2	17.7	16.7	18.8
3	Region 19	13.8	13.3	14.5	9.9	9.7	10.2	29.2	28.5	29.9	26.7	26.3	27.0	20.4	19.1	21.5	79.6	78.5	80.9	25.3	22.6	29.6	15.6	9.8	20.8
2	Region 20	14.2	12.6	15.9	9.8	9.5	10.0	27.9	26.9	28.9	25.8	23.7	27.9	22.3	21.0	23.5	77.7	76.5	79.0	27.2	22.4	31.9	15.3	12.9	17.7
3	Region 23	13.5	12.5	14.0	10.0	9.9	10.1	28.9	27.8	29.8	27.3	26.8	28.2	20.4	19.6	21.2	79.6	78.8	80.4	25.4	23.7	26.6	21.7	17.1	27.3
1	Region 25	16.4	16.4	16.4	10.3	10.3	10.3	26.8	26.8	26.8	23.3	23.3	23.3	23.2	23.2	23.2	76.8	76.8	76.8	16.2	16.2	16.2	3.7	3.7	3.7
2	Region 26	17.0	16.5	17.5	10.8	10.3	11.2	25.2	25.0	25.5	23.3	22.0	24.6	23.7	22.1	25.3	76.3	74.7	77.9	30.1	29.8	30.3	19.3	18.6	20.0
3	Region 28	14.4	14.4	14.5	9.2	8.9	9.6	27.9	27.3	28.5	25.6	25.4	25.7	22.9	22.5	23.3	77.1	76.7	77.5	30.8	29.8	32.3	19.6	18.1	21.1
3	Region 29	15.3	14.3	17.1	9.9	9.5	10.5	28.3	26.9	29.0	26.0	24.3	27.2	20.5	19.9	21.2	79.5	78.8	80.1	27.9	20.6	35.3	16.8	6.3	23.5
4	Region 30	12.9	12.3	13.6	9.6	9.4	10.0	28.6	27.6	30.4	27.4	26.6	28.8	21.5	18.5	23.1	78.5	76.9	81.5	29.2	27.4	31.3	21.7	20.6	23.7
1	Region 32	15.5	15.5	15.5	10.2	10.2	10.2	26.4	26.4	26.4	26.4	26.4	26.4	21.4	21.4	21.4	78.6	78.6	78.6	29.2	29.2	29.2	19.5	19.5	19.5
2	Region 34	14.9	14.1	15.7	9.9	9.6	10.2	27.9	27.1	28.8	25.2	25.1	25.3	22.1	21.9	22.2	77.9	77.8	78.1	29.0	27.7	30.3	20.7	18.9	22.4
2	Region 36	13.7	13.2	14.2	10.1	9.1	11.0	29.3	29.2	29.5	26.8	25.7	27.8	20.1	17.4	22.8	79.9	77.2	82.6	24.7	23.3	26.1	14.4	14.4	14.5
<b>36</b>	<b>Ave WM 2</b>	<b>14.2</b>	<b>12.3</b>	<b>17.5</b>	<b>10.0</b>	<b>8.9</b>	<b>11.3</b>	<b>28.4</b>	<b>25.0</b>	<b>31.4</b>	<b>26.3</b>	<b>22.0</b>	<b>29.1</b>	<b>21.1</b>	<b>17.4</b>	<b>25.3</b>	<b>78.9</b>	<b>74.7</b>	<b>82.6</b>	<b>28.4</b>	<b>16.2</b>	<b>35.9</b>	<b>19.3</b>	<b>3.7</b>	<b>33.0</b>
	<b>Min WM 2</b>																								
	<b>Max WM 2</b>																								

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(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.	
<b>GRADE: WM 3</b>																										
1	Region 16	12.6	12.6	12.6	10.1	10.1	10.1	31.1	31.1	31.1	27.5	27.5	27.5	18.7	18.7	18.7	81.3	81.3	81.3	24.4	24.4	24.4	13.5	13.5	13.5	
1	Region 19	13.2	13.2	13.2	9.7	9.7	9.7	29.8	29.8	29.8	26.1	26.1	26.1	21.3	21.3	21.3	78.7	78.7	78.7	20.0	20.0	20.0	6.6	6.6	6.6	
1	Region 25	14.0	14.0	14.0	9.6	9.6	9.6	26.3	26.3	26.3	24.9	24.9	24.9	25.2	25.2	25.2	74.8	74.8	74.8	36.7	36.7	36.7	21.3	21.3	21.3	
1	Region 36	13.1	13.1	13.1	10.2	10.2	10.2	28.3	28.3	28.3	25.5	25.5	25.5	22.9	22.9	22.9	77.1	77.1	77.1	25.7	25.7	25.7	12.8	12.8	12.8	
4	<b>Ave WM 3</b>	13.2			9.9			28.9			26.0			22.0			78.0			26.7			13.5			
	<b>Min WM 3</b>	12.6			9.6			26.3			24.9			18.7			74.8			20.0			6.6			
	<b>Max WM 3</b>	14.0			10.2			31.1			27.5			25.2			81.3			36.7			21.3			
<b>GRADE: COM</b>																										
2	Region 17	12.7	12.4	13.1	10.2	10.0	10.4	28.7	28.4	28.9	28.0	26.8	29.2	20.4	18.8	22.0	79.6	78.0	81.2	27.3	26.7	28.0	18.5	16.9	20.0	
1	Region 28	15.3	15.3	15.3	9.5	9.5	9.5	26.5	26.5	26.5	25.6	25.6	25.6	23.1	23.1	23.1	76.9	76.9	76.9	28.7	28.7	28.7	17.2	17.2	17.2	
3	<b>Ave COM</b>	13.6			10.0			28.0			27.2			21.3			78.7			27.8			18.0			
	<b>Min COM</b>	12.4			9.5			26.5			25.6			18.8			76.9			26.7			16.9			
	<b>Max COM</b>	15.3			10.4			28.9			29.2			23.1			81.2			28.7			20.0			
483	<b>Ave white maize</b>	14.0			9.9			28.3			26.4			21.4			78.6			29.7			20.5			
	<b>Min white maize</b>	10.3			7.1			22.7			20.8			15.1			70.0			16.2			3.7			
	<b>Max white maize</b>	20.7			13.4			32.8			31.4			30.0			84.9			38.1			35.0			

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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.
<b>GRADE: WHITE</b>																									
1	Region 11	13.8	13.8	13.8	9.5	9.5	9.5	30.2	30.2	30.2	25.9	25.9	25.9	20.7	20.7	20.7	79.3	79.3	79.3	26.3	26.3	26.3	16.2	16.2	16.2
15	Region 12	14.1	11.5	18.3	9.6	9.0	10.3	28.0	25.6	30.8	27.3	23.7	29.9	21.0	17.6	25.5	79.0	74.5	82.4	31.5	27.9	36.5	22.3	17.7	25.5
17	Region 13	14.2	12.7	16.0	10.0	8.2	10.9	28.6	27.1	29.5	25.7	23.4	28.1	21.5	18.8	23.0	78.5	77.0	81.2	31.2	27.0	35.7	20.5	14.7	23.8
36	Region 14	13.2	12.2	14.5	9.8	8.8	11.1	28.8	25.5	31.8	27.1	25.1	29.6	21.0	17.3	23.9	79.0	76.1	82.7	32.0	24.2	36.9	21.7	15.7	26.5
25	Region 15	12.8	11.7	14.0	9.6	8.8	11.6	28.7	26.9	30.1	27.6	25.5	29.1	21.3	19.3	24.3	78.7	75.7	80.7	32.1	28.5	36.9	22.5	17.4	29.0
41	Region 16	13.9	11.4	15.9	10.3	9.3	13.4	29.6	24.6	31.8	26.0	23.1	29.0	20.2	15.1	23.0	79.8	77.0	84.9	29.8	24.4	35.1	22.3	13.5	33.0
35	Region 17	14.1	11.3	16.8	10.4	9.2	11.6	29.3	27.3	31.4	25.3	21.8	29.2	20.9	17.0	25.0	79.1	75.0	83.0	29.3	22.8	34.8	20.4	10.8	26.5
10	Region 18	13.2	11.8	14.2	9.9	8.9	10.5	28.4	26.0	32.8	26.8	24.5	29.3	21.8	18.6	24.7	78.2	75.3	81.4	27.9	22.3	31.2	20.1	13.0	29.3
10	Region 19	13.5	12.5	15.0	9.8	9.1	10.6	28.9	28.1	29.9	26.2	24.2	27.0	21.5	19.1	23.2	78.5	76.8	80.9	25.8	20.0	31.8	16.4	6.6	21.7
17	Region 20	14.4	11.6	16.6	10.3	9.3	12.0	28.7	26.9	30.6	25.5	22.4	27.9	21.2	18.7	23.6	78.8	76.4	81.3	29.1	22.4	36.0	18.8	12.9	23.6
24	Region 21	14.2	12.0	15.5	10.0	7.1	11.4	28.3	25.0	31.3	26.9	23.8	29.6	20.6	17.4	23.7	79.4	76.3	82.6	27.6	19.7	35.4	20.2	12.7	35.0
19	Region 22	14.0	13.0	15.6	9.9	7.3	10.6	27.8	25.1	32.1	27.9	24.4	29.7	20.4	17.8	23.1	79.6	76.9	82.2	28.6	23.8	31.4	20.9	11.5	25.3
30	Region 23	14.0	12.5	16.6	10.1	9.4	11.2	27.9	24.8	31.2	27.8	24.6	30.1	20.2	17.1	22.5	79.8	77.5	82.9	30.0	23.7	36.1	21.2	15.7	27.3
16	Region 24	13.7	11.5	15.8	9.9	9.1	10.8	27.1	23.4	32.2	27.7	23.8	31.4	21.7	16.6	30.0	78.3	70.0	83.4	28.8	20.5	36.0	18.5	12.3	25.8
13	Region 25	16.0	12.4	20.7	9.6	7.1	11.6	26.4	22.9	31.2	24.6	20.8	27.2	23.3	18.1	26.3	76.7	73.7	81.9	28.1	16.2	36.7	17.3	3.7	24.4
19	Region 26	15.3	13.5	17.5	10.1	9.0	11.3	27.1	24.6	30.8	25.4	21.9	28.2	22.1	17.0	25.3	77.9	74.7	83.0	30.7	17.7	37.5	21.0	10.7	26.6
6	Region 27	14.4	13.7	14.8	9.9	9.3	10.6	27.4	26.0	28.3	26.0	24.7	28.4	22.2	20.8	23.7	77.8	76.3	79.2	30.1	24.2	34.5	19.2	13.4	22.1
26	Region 28	15.1	13.5	17.4	9.9	8.2	11.5	27.6	25.4	29.0	25.0	23.4	27.0	22.5	20.6	23.8	77.5	76.2	79.4	31.1	24.1	34.9	20.8	16.7	25.4
31	Region 29	14.2	10.9	17.1	9.7	9.0	11.3	27.4	24.8	29.4	26.7	23.4	29.3	21.9	19.0	24.5	78.1	75.5	81.0	30.2	20.6	36.1	21.5	6.3	29.5
22	Region 30	13.8	12.3	16.4	10.0	8.0	13.2	28.3	22.7	32.3	25.9	23.3	30.2	21.9	18.5	25.4	78.1	74.6	81.5	29.7	18.8	38.1	20.4	12.4	25.9
12	Region 31	13.4	11.3	15.4	9.7	8.8	10.5	28.6	24.8	30.2	27.1	23.0	30.3	21.3	19.5	25.8	78.7	74.2	80.5	25.7	19.8	35.6	18.2	12.0	25.1
19	Region 32	14.0	10.3	17.1	9.8	8.0	11.6	27.3	24.7	31.0	26.6	23.3	29.6	22.3	18.1	25.2	77.7	74.8	81.9	29.7	22.1	33.8	20.8	13.7	23.8
1	Region 33	15.8	15.8	15.8	10.1	10.1	10.1	27.8	27.8	27.8	24.4	24.4	24.4	21.9	21.9	21.9	78.1	78.1	78.1	27.2	27.2	27.2	25.5	25.5	25.5
12	Region 34	14.6	12.7	16.7	10.1	9.3	11.4	28.2	26.0	29.7	25.1	22.7	26.9	21.9	20.1	24.6	78.1	75.4	79.9	28.5	26.1	30.6	19.9	17.6	22.4
9	Region 35	13.2	10.8	15.4	9.5	8.8	10.6	27.8	27.1	29.3	27.1	24.9	30.2	22.3	20.4	23.3	77.7	76.7	79.6	31.3	28.0	37.2	20.7	17.1	23.2
17	Region 36	13.0	11.0	14.2	9.6	9.0	11.0	28.9	27.2	30.6	26.5	24.5	28.2	22.0	17.4	24.4	78.0	75.6	82.6	26.5	23.2	31.7	17.0	12.8	20.1
<b>483</b>	<b>Ave white</b>	<b>14.0</b>			<b>9.9</b>			<b>28.3</b>			<b>26.4</b>			<b>21.4</b>			<b>78.6</b>			<b>29.7</b>			<b>20.5</b>		
	<b>Min white</b>	<b>10.3</b>			<b>7.1</b>			<b>22.7</b>			<b>20.8</b>			<b>15.1</b>			<b>70.0</b>			<b>16.2</b>			<b>3.7</b>		
	<b>Max white</b>	<b>20.7</b>			<b>13.4</b>			<b>32.8</b>			<b>31.4</b>			<b>30.0</b>			<b>84.9</b>			<b>38.1</b>			<b>35.0</b>		