

**TABLE 19: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2007/2008)**

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>																									
5	Region 12	13.1	11.6	14.1	10.2	9.8	10.6	28.0	27.5	29.6	27.7	26.9	28.5	21.1	20.5	21.7	78.9	78.3	79.5	28.2	21.7	32.3	20.9	18.8	24.4
6	Region 13	12.2	11.9	12.6	10.0	9.8	10.3	29.2	27.6	31.0	28.5	27.2	30.5	20.1	16.0	22.1	79.9	77.9	84.0	28.5	26.4	30.3	19.4	17.7	20.9
17	Region 14	13.1	11.3	15.1	10.3	9.8	10.7	30.8	28.4	33.1	26.3	23.3	30.6	19.5	14.8	22.1	80.5	77.9	85.2	26.8	20.3	30.2	18.0	12.3	20.7
2	Region 15	12.3	11.8	12.7	9.6	9.5	9.8	25.6	24.7	26.4	32.5	32.4	32.7	20.0	19.9	20.1	80.0	79.9	80.1	31.5	30.7	32.3	24.7	24.3	25.1
19	Region 16	13.3	12.0	15.1	9.9	9.1	11.1	29.3	25.7	31.2	26.7	23.7	33.8	20.7	18.6	23.0	79.3	77.0	81.4	26.9	23.0	34.6	18.5	15.1	26.3
16	Region 17	12.2	10.2	14.0	9.6	8.0	11.5	27.7	24.8	31.3	30.5	26.9	34.1	19.9	15.0	23.0	80.1	77.0	85.0	28.3	24.7	32.0	20.0	16.1	26.3
19	Region 18	12.7	11.8	14.1	9.6	8.9	10.8	26.8	25.1	30.5	30.5	26.6	33.2	20.4	19.4	22.1	79.6	77.9	80.6	27.9	25.9	31.2	19.8	15.9	26.7
9	Region 19	13.5	12.2	16.1	10.5	9.5	12.2	28.8	28.0	30.0	27.3	25.4	30.4	19.9	15.6	22.6	80.1	77.4	84.4	29.3	25.4	32.6	20.7	18.3	23.9
11	Region 20	14.0	11.9	16.5	10.3	9.8	11.4	29.4	27.2	31.5	26.0	22.9	29.5	20.3	15.4	22.8	79.7	77.2	84.6	25.9	22.3	30.3	17.0	12.2	21.2
18	Region 21	12.2	9.3	13.8	9.5	8.7	10.7	27.6	25.2	37.3	30.4	21.1	34.9	20.3	18.8	22.0	79.7	78.0	81.2	29.7	21.8	37.7	22.1	17.7	31.2
15	Region 22	12.9	12.0	14.6	9.7	9.2	10.1	27.6	25.4	29.9	29.4	26.2	31.6	20.4	18.6	22.4	79.6	77.6	81.4	30.9	24.6	37.6	21.6	18.1	26.1
46	Region 23	12.1	10.2	15.3	9.6	8.9	10.7	28.0	24.8	31.7	30.4	24.9	33.5	19.8	15.6	22.5	80.2	77.5	84.4	29.6	22.6	35.7	20.6	13.4	29.3
45	Region 24	12.2	10.2	14.9	9.5	7.9	10.7	28.1	21.6	31.2	30.2	26.7	34.1	20.0	18.3	22.2	80.0	77.8	81.7	28.2	21.6	41.7	20.7	15.1	37.4
16	Region 25	14.7	11.7	17.7	10.6	9.1	11.9	28.7	25.6	31.6	25.7	21.2	30.7	20.3	15.9	23.2	79.7	76.8	84.1	28.2	22.5	34.2	18.2	12.9	24.5
12	Region 26	12.3	10.8	14.4	9.5	8.5	10.1	27.4	25.1	29.0	29.9	26.7	33.9	20.9	18.3	23.1	79.1	76.9	81.7	27.7	22.4	31.5	20.3	12.6	25.4
1	Region 27	11.8	11.8	11.8	9.9	9.9	9.9	25.7	25.7	25.7	33.0	33.0	33.0	19.6	19.6	19.6	80.4	80.4	80.4	27.2	27.2	27.2	19.1	19.1	19.1
9	Region 28	13.6	12.4	15.8	10.4	9.5	12.1	27.4	26.4	28.8	28.1	26.0	30.9	20.4	16.8	24.8	79.6	75.2	83.2	30.8	25.6	34.9	21.9	15.6	25.7
33	Region 29	13.4	11.4	15.8	10.4	9.1	11.7	29.8	25.7	31.9	25.9	23.4	29.8	20.5	15.0	28.2	79.5	71.8	85.0	26.7	22.2	32.0	17.0	13.4	22.2
41	Region 30	13.9	11.2	16.6	10.6	9.8	13.3	30.2	28.0	33.0	24.7	21.8	32.5	20.6	14.5	22.9	79.4	77.1	85.5	25.5	22.3	33.0	18.2	11.0	26.3
5	Region 31	14.7	13.7	16.3	10.8	10.7	11.0	29.0	26.3	30.9	23.8	21.8	25.2	21.7	19.3	24.6	78.3	75.4	80.7	24.8	22.1	27.3	14.5	12.7	18.3
19	Region 32	13.1	11.0	15.1	10.5	9.6	14.5	27.7	25.4	29.9	28.0	25.2	30.5	20.7	15.3	23.7	79.3	76.3	84.7	27.6	23.8	31.2	19.5	16.1	25.6
26	Region 33	13.6	12.1	16.0	10.7	9.8	11.9	29.0	26.4	31.8	26.4	23.5	30.4	20.4	15.4	24.5	79.6	75.5	84.6	27.7	21.8	31.9	17.2	11.6	21.4
25	Region 34	13.6	11.2	17.5	10.4	9.2	12.4	27.8	24.7	30.8	27.2	21.2	35.4	20.9	16.6	24.0	79.1	76.0	83.4	28.1	25.1	33.0	18.6	12.3	25.4
14	Region 35	11.7	8.6	13.4	9.5	8.4	10.1	27.1	25.0	30.1	30.4	26.1	35.1	21.3	16.5	24.8	78.7	75.2	83.5	32.0	25.0	36.5	21.8	16.8	27.0
15	Region 36	12.9	11.2	14.7	10.2	9.6	11.1	29.9	27.8	31.7	25.4	23.1	27.9	21.6	20.1	24.8	78.4	75.2	79.9	25.8	20.7	28.8	16.4	12.9	20.3
<b>444</b>	<b>Ave WM 1</b>	<b>13.0</b>			<b>10.1</b>			<b>28.6</b>			<b>28.0</b>			<b>20.4</b>			<b>79.6</b>			<b>28.0</b>			<b>19.3</b>		
	<b>Min WM 1</b>	<b>8.6</b>			<b>7.9</b>			<b>21.6</b>			<b>21.1</b>			<b>14.5</b>			<b>71.8</b>			<b>20.3</b>			<b>11.0</b>		
	<b>Max WM 1</b>	<b>17.7</b>			<b>14.5</b>			<b>37.3</b>			<b>35.4</b>			<b>28.2</b>			<b>85.5</b>			<b>41.7</b>			<b>37.4</b>		

**TABLE 19: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE ACCORDING TO GRADE (2007/2008)**  
(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>																										
1	Region 13	18.0	18.0	18.0	12.1	12.1	12.1	27.4	27.4	27.4	24.2	24.2	24.2	18.3	18.3	18.3	81.7	81.7	81.7	36.1	36.1	36.1	25.4	25.4	25.4	
1	Region 17	12.5	12.5	12.5	10.0	10.0	10.0	26.6	26.6	26.6	29.3	29.3	29.3	21.5	21.5	21.5	78.5	78.5	78.5	29.3	29.3	29.3	18.0	18.0	18.0	
1	Region 19	12.5	12.5	12.5	10.3	10.3	10.3	29.3	29.3	29.3	31.3	31.3	31.3	16.6	16.6	16.6	83.4	83.4	83.4	31.2	31.2	31.2	21.8	21.8	21.8	
2	Region 20	14.5	14.5	14.6	10.1	9.9	10.2	27.1	26.6	27.6	26.0	25.4	26.5	22.3	22.3	22.3	77.7	77.7	77.7	29.7	29.0	30.4	21.0	19.8	22.2	
1	Region 21	12.9	12.9	12.9	9.7	9.7	9.7	27.1	27.1	27.1	30.5	30.5	30.5	19.9	19.9	19.9	80.1	80.1	80.1	21.1	21.1	21.1	8.6	8.6	8.6	
1	Region 22	13.8	13.8	13.8	10.0	10.0	10.0	26.2	26.2	26.2	27.8	27.8	27.8	22.2	22.2	22.2	77.8	77.8	77.8	31.0	31.0	31.0	19.2	19.2	19.2	
1	Region 23	12.9	12.9	12.9	9.5	9.5	9.5	27.2	27.2	27.2	30.1	30.1	30.1	20.2	20.2	20.2	79.8	79.8	79.8	30.0	30.0	30.0	24.6	24.6	24.6	
2	Region 26	13.7	12.9	14.6	10.7	10.4	11.1	27.7	27.3	28.1	30.9	30.3	31.4	17.0	16.8	17.2	83.0	82.8	83.2	27.9	25.8	30.0	19.5	18.3	20.6	
2	Region 28	13.9	13.3	14.5	10.1	9.9	10.3	26.6	26.5	26.8	28.7	28.6	28.9	20.6	19.8	21.4	79.4	78.6	80.2	27.7	27.4	27.9	19.7	19.7	19.7	
5	Region 29	12.3	8.6	14.3	10.5	9.1	11.5	29.9	28.9	30.9	26.7	23.9	32.2	20.6	19.7	21.1	79.4	78.9	80.3	25.4	19.6	30.1	14.1	8.5	16.9	
6	Region 30	14.2	12.6	15.2	10.4	9.6	10.9	29.7	28.3	30.9	24.4	23.0	26.4	21.3	19.5	23.9	78.7	76.1	80.5	24.9	23.1	26.9	15.2	12.4	17.3	
4	Region 32	12.7	11.5	13.7	10.8	10.3	11.3	27.8	27.3	28.2	27.8	27.2	29.0	21.0	19.9	21.6	79.0	78.4	80.1	26.5	23.2	31.1	16.5	13.0	18.2	
3	Region 33	15.2	13.9	16.3	11.6	11.1	12.1	29.5	28.5	31.4	26.8	22.1	30.5	16.9	15.2	19.7	83.1	80.3	84.8	30.2	29.1	31.0	18.7	17.0	20.5	
3	Region 34	11.4	10.9	12.1	10.7	10.2	11.4	29.5	28.5	30.0	29.2	27.5	31.7	19.3	16.4	21.2	80.7	78.8	83.6	25.4	21.9	30.8	15.6	9.9	23.6	
<b>33</b>	<b>Ave WM 2</b>	<b>13.4</b>			<b>10.5</b>			<b>28.6</b>	<b>26.2</b>	<b>31.4</b>	<b>27.4</b>			<b>20.1</b>			<b>79.9</b>	<b>76.1</b>	<b>84.8</b>	<b>27.2</b>			<b>17.2</b>			
	<b>Min WM 2</b>	<b>8.6</b>			<b>9.1</b>			<b>26.2</b>		<b>31.4</b>	<b>22.1</b>			<b>15.2</b>			<b>76.1</b>		<b>84.8</b>	<b>19.6</b>			<b>8.5</b>			
	<b>Max WM 2</b>	<b>18.0</b>			<b>12.1</b>			<b>31.4</b>		<b>32.2</b>	<b>32.2</b>			<b>23.9</b>			<b>84.8</b>			<b>36.1</b>			<b>25.4</b>			
<b>GRADE: WM 3</b>																										
1	Region 13	15.3	15.3	15.3	10.3	10.3	10.3	28.3	28.3	28.3	30.6	30.6	30.6	15.5	15.5	15.5	84.5	84.5	84.5	27.8	27.8	27.8	17.4	17.4	17.4	
1	Region 14	16.9	16.9	16.9	10.9	10.9	10.9	27.9	27.9	27.9	23.9	23.9	23.9	20.5	20.5	20.5	79.5	79.5	79.5	34.9	34.9	34.9	24.7	24.7	24.7	
1	Region 25	15.7	15.7	15.7	11.3	11.3	11.3	30.4	30.4	30.4	21.6	21.6	21.6	21.0	21.0	21.0	79.0	79.0	79.0	28.0	28.0	28.0	17.3	17.3	17.3	
1	Region 29	14.3	14.3	14.3	10.2	10.2	10.2	26.7	26.7	26.7	25.1	25.1	25.1	23.7	23.7	23.7	76.3	76.3	76.3	32.8	32.8	32.8	21.4	21.4	21.4	
1	Region 30	14.6	14.6	14.6	10.2	10.2	10.2	28.0	28.0	28.0	24.5	24.5	24.5	22.7	22.7	22.7	77.3	77.3	77.3	20.7	20.7	20.7	12.6	12.6	12.6	
1	Region 32	13.2	13.2	13.2	10.2	10.2	10.2	27.1	27.1	27.1	27.0	27.0	27.0	22.5	22.5	22.5	77.5	77.5	77.5	22.7	22.7	22.7	11.6	11.6	11.6	
<b>6</b>	<b>Ave WM 3</b>	<b>15.0</b>			<b>10.5</b>			<b>28.1</b>	<b>26.7</b>	<b>30.4</b>	<b>25.5</b>			<b>21.0</b>			<b>79.0</b>		<b>84.5</b>	<b>27.8</b>			<b>17.5</b>			
	<b>Min WM 3</b>	<b>13.2</b>			<b>10.2</b>			<b>26.7</b>		<b>30.4</b>	<b>21.6</b>			<b>15.5</b>			<b>76.3</b>		<b>84.5</b>	<b>20.7</b>			<b>11.6</b>			
	<b>Max WM 3</b>	<b>16.9</b>			<b>11.3</b>			<b>30.4</b>		<b>32.2</b>	<b>30.6</b>			<b>23.7</b>			<b>84.5</b>			<b>34.9</b>			<b>24.7</b>			
<b>483</b>	<b>Ave white maize</b>	<b>13.1</b>			<b>10.1</b>			<b>28.5</b>	<b>21.6</b>	<b>37.3</b>	<b>27.9</b>			<b>20.4</b>			<b>79.6</b>		<b>85.5</b>	<b>27.9</b>			<b>19.1</b>			
	<b>Min white maize</b>	<b>8.6</b>			<b>7.9</b>			<b>21.6</b>		<b>35.4</b>	<b>21.1</b>			<b>14.5</b>			<b>71.8</b>		<b>85.5</b>	<b>19.6</b>			<b>8.5</b>			
	<b>Max white maize</b>	<b>18.0</b>			<b>14.5</b>			<b>37.3</b>			<b>35.4</b>			<b>28.2</b>			<b>85.5</b>			<b>41.7</b>			<b>37.4</b>			

**TABLE 19: ROFF MILLING AND WHITENESS INDEX OF WHITE MAIZE (2007/2008)**

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>																									
5	Region 12	13.1	11.6	14.1	10.2	9.8	10.6	28.0	27.5	29.6	27.7	26.9	28.5	21.1	20.5	21.7	78.9	78.3	79.5	28.2	21.7	32.3	20.9	18.8	24.4
8	Region 13	13.3	11.9	18.0	10.3	9.8	12.1	28.8	27.4	31.0	28.3	24.2	30.6	19.3	15.5	22.1	80.7	77.9	84.5	29.3	26.4	36.1	19.9	17.4	25.4
18	Region 14	13.3	11.3	16.9	10.3	9.8	10.9	30.6	27.9	33.1	26.2	23.3	30.6	19.6	14.8	22.1	80.4	77.9	85.2	27.2	20.3	34.9	18.4	12.3	24.7
2	Region 15	12.3	11.8	12.7	9.6	9.5	9.8	25.6	24.7	26.4	32.5	32.4	32.7	20.0	19.9	20.1	80.0	79.9	80.1	31.5	30.7	32.3	24.7	24.3	25.1
19	Region 16	13.3	12.0	15.1	9.9	9.1	11.1	29.3	25.7	31.2	26.7	23.7	33.8	20.7	18.6	23.0	79.3	77.7	81.4	26.9	23.0	34.6	18.5	15.1	26.3
17	Region 17	12.2	10.2	14.0	9.6	8.0	11.5	27.7	24.8	31.3	30.4	26.9	34.1	20.0	15.0	23.0	80.0	77.0	85.0	28.4	24.7	32.0	19.9	16.1	26.3
19	Region 18	12.7	11.8	14.1	9.6	8.9	10.8	26.8	25.1	30.5	30.5	26.6	33.2	20.4	19.4	22.1	79.6	77.9	80.6	27.9	25.9	31.2	19.8	15.9	26.7
10	Region 19	13.4	12.2	16.1	10.4	9.5	12.2	28.9	28.0	30.0	27.7	25.4	31.3	19.6	15.6	22.6	80.4	77.4	84.4	29.5	25.4	32.6	20.9	18.3	23.9
13	Region 20	14.1	11.9	16.5	10.3	9.8	11.4	29.0	26.6	31.5	26.0	22.9	29.5	20.6	15.4	22.8	79.4	77.2	84.6	26.4	22.3	30.4	17.6	12.2	22.2
19	Region 21	12.2	9.3	13.8	9.5	8.7	10.7	27.6	25.2	37.3	30.4	21.1	34.9	20.3	18.8	22.0	79.7	78.0	81.2	29.2	21.1	37.7	21.4	8.6	31.2
16	Region 22	13.0	12.0	14.6	9.7	9.2	10.1	27.5	25.4	29.9	29.3	26.2	31.6	20.5	18.6	22.4	79.5	77.6	81.4	30.9	24.6	37.6	21.5	18.1	26.1
47	Region 23	12.2	10.2	15.3	9.6	8.9	10.7	28.0	24.8	31.7	30.4	24.9	33.5	19.8	15.6	22.5	80.2	77.5	84.4	29.6	22.6	35.7	20.6	13.4	29.3
45	Region 24	12.2	10.2	14.9	9.5	7.9	10.7	28.1	21.6	31.2	30.2	26.7	34.1	20.0	18.3	22.2	80.0	77.8	81.7	28.2	21.6	41.7	20.7	15.1	37.4
17	Region 25	14.7	11.7	17.7	10.6	9.1	11.9	28.8	25.6	31.6	25.4	21.2	30.7	20.4	15.9	23.2	79.6	76.8	84.1	28.2	22.5	34.2	18.2	12.9	24.5
14	Region 26	12.5	10.8	14.6	9.7	8.5	11.1	27.4	25.1	29.0	30.0	26.7	33.9	20.3	16.8	23.1	79.7	76.9	83.2	27.7	22.4	31.5	20.2	12.6	25.4
1	Region 27	11.8	11.8	11.8	9.9	9.9	9.9	25.7	25.7	25.7	33.0	33.0	33.0	19.6	19.6	19.6	80.4	80.4	80.4	27.2	27.2	27.2	19.1	19.1	19.1
11	Region 28	13.7	12.4	15.8	10.4	9.5	12.1	27.3	26.4	28.8	28.2	26.0	30.9	20.5	16.8	24.8	79.5	75.2	83.2	30.2	25.6	34.9	21.5	15.6	25.7
39	Region 29	13.3	8.6	15.8	10.4	9.1	11.7	29.7	25.7	31.9	26.0	23.4	32.2	20.6	15.0	28.2	79.4	71.8	85.0	26.7	19.6	32.8	16.7	8.5	22.2
48	Region 30	13.9	11.2	16.6	10.6	9.6	13.3	30.1	28.0	33.0	24.7	21.8	32.5	20.7	14.5	23.9	79.3	76.1	85.5	25.4	20.7	33.0	17.7	11.0	26.3
5	Region 31	14.7	13.7	16.3	10.8	10.7	11.0	29.0	26.3	30.9	23.8	21.8	25.2	21.7	19.3	24.6	78.3	75.4	80.7	24.8	22.1	27.3	14.5	12.7	18.3
24	Region 32	13.0	11.0	15.1	10.5	9.6	14.5	27.7	25.4	29.9	27.9	25.2	30.5	20.8	15.3	23.7	79.2	76.3	84.7	27.2	22.7	31.2	18.7	11.6	25.6
29	Region 33	13.8	12.1	16.3	10.8	9.8	12.1	29.1	26.4	31.8	26.4	22.1	30.5	20.0	15.2	24.5	80.0	75.5	84.8	27.9	21.8	31.9	17.3	11.6	21.4
28	Region 34	13.4	10.9	17.5	10.5	9.2	12.4	28.0	24.7	30.8	27.4	21.2	35.4	20.7	16.4	24.0	79.3	76.0	83.6	27.8	21.9	33.0	18.3	9.9	25.4
14	Region 35	11.7	8.6	13.4	9.5	8.4	10.1	27.1	25.0	30.1	30.4	26.1	35.1	21.3	16.5	24.8	78.7	75.2	83.5	32.0	25.0	36.5	21.8	16.8	27.0
15	Region 36	12.9	11.2	14.7	10.2	9.6	11.1	29.9	27.8	31.7	25.4	23.1	27.9	21.6	20.1	24.8	78.4	75.2	79.9	25.8	20.7	28.8	16.4	12.9	20.3
483	Ave white	13.1			10.1			28.5			27.9			20.4			79.6			27.9			19.1		
	Min white	8.6			7.9			21.6			21.1			14.5			71.8			19.6			8.5		
	Max white	18.0			14.5			37.3			35.4			28.2			85.5			41.7			37.4		